

Adobe® Marketing Cloud
Data Workbench Release Notes

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Data Workbench Release Notes

Identify new features, upgrade instructions, and bug fixes for released versions of Data Workbench.

See [archived release notes](#) for Data Workbench 5.3 to 5.52.

Data Workbench 6.6 Release Notes

Data Workbench 6.6 release notes include new features, upgrade requirements, fixed bugs, and known issues.

New Features

Data Workbench 6.6 includes these new features:

DWB 6.6 Features	Description
Smart Feature Selection	<p>The Smart Feature provides automated feature selection when using the Propensity Scoring visualization. You no longer need to select the independent variables from a long list of metrics and dimensions.</p> <p>Select Options > Feature to enable the feature selection menu. If the Feature Reduction option is not selected, you can make the system explore additional model inputs from the entire set of metrics while retaining user-added metrics. Checking Feature Reduction will make the system select the most relevant metrics from the user metrics.</p> <p> <i>Note: While using Smart Feature Selection for an empty model, Feature Selection Settings are redundant.</i></p> <p>Selecting More Features or Less Features from the Level Setting menu makes the selection algorithm add feature sets to the model. In some cases both setting types may return the same model.</p>
Segment Export Wizard	The Segment Export Wizard provides a step-by-step process to configure and export segments.
New export executable for Target exports	To export Adobe Target data, a new <code>TargetBulkUpload.exe</code> has been developed to replace the <code>ExportIntegration.exe</code> for Target exports. If a user wants to move legacy exports to <code>TargetBulkUpload.exe</code> , then exports have to be changed (change <code>mbox3rdPartyId</code> to <code>thirdPartyId</code>).
L4 Logging	An option for L4 Logging has been added under Server > Admin > Export menu, as well as a new configuration file (<code>loggingDetails.cfg</code>). This allows you to turn GE and L4 logging on and off. By default, L4 Logging will be set to <i>true</i> and GE Logging will be set to <i>false</i> in the configuration file, but you can change these settings as needed. This is only for exports using the <code>exportintegration.exe</code> .
New Presentation Layer options	You can now set transparency and border thickness for Circle and Rectangle shapes within the Presentation Layer. Right-click on the object and select No Fill to make it transparent. Four border thickness options are present under Outline —Thin, Medium, Thick, Thickest.

DWB 6.6 Features	Description
New options for Correlation and Association Chord diagrams	<p>New grouping options have been added in the Correlation Chord and Association Chord diagrams. The right-click menu now includes Add Group, Remove Group, and Add to Group.</p> <p>Grouping will display once you populate your chord. All elements part of the same grouping will be based on the group's color. You can set the group's color like you would set an element's colors. If a grouping is deleted, then the elements are moved to Ungrouped.</p>
Set transparency and border thickness for annotations	<p>You can now set the transparency and border size of circles and rectangles to highlight and annotate visualizations in a workspace. New options for the circle and rectangle include a No Fill option for transparency and border thickness settings of Thin, Medium, or Thickest.</p>
XML Decoder enhancements	<p>You can now use the #value tag in XML paths to pull the value of an XML element. For example, you can now read the attribute value of the <code><Hit><Page name="Home Page" index="20">home.html </Page></Hit></code> tag using a <code>Hit.Page.#value</code> expression. See xml decoder groups for additional information.</p>
New features in Propensity Score	<p>Within the toolbar button you can now choose to either Save a filter or automatically launch Propensity Scoring with a new feature selection capability. The Propensity Scoring opens the builder with the workspace selections applied for the dependent variable, enables the selected features, and lets you hit Go to start.</p> <p>It is now possible to save a Propensity Score Model as a JavaScript file. After the model is built click on Save > Save JavaScript.</p>
Additional Visit level predictive builders	<p>Added new predictive builders with Visit as the root countable dimension for Propensity Scoring, Clustering, and Decision Trees.</p>
Additional Latency visualizations	<p>Added a set of Latency visualizations. The former latency visualizations looked at an equal period around the event (-7 to +7 days) to create an assignment. This works well for only one event per clip, but doesn't give adequate results when there are multiple events, such as multiple conversions.</p> <p>We have reorganized and added additional latency visualizations to the menu that are configured to evaluate latency before an event, after an event, and before and after a single event.</p>
Updates to report.cfg	<p>You can now view dates in calendar format in the <code>report.cfg</code> configuration tree.</p>
Chord Visualization updates	<p>Implemented the ability to scale in the Chord and Pie Chart visualizations. You can scale by holding down <code><Ctrl></code> key and using the mouse wheel, or by right-clicking on the window border, selecting a value to scale, and entering a value.</p>
Access to Detailed Status	<p>Access to Detailed Status is now restricted to Power Users and Administrators by default.</p>

System Updates

These features have been renamed, deleted, or the installation files or folders were restructured in this release:

- Default extension for a `reportserver.cfg` file is now `.xlsx`.
- Additions to `Insight.cfg` (the configuration tree).

- printf format: You can now set the printf format from the **Insight.cfg** tree.
- V3D: You can now set a V3D setting using three associated edit boxes.
- Date and Time: You can now set the date and time from a dropdown menu.
- The Page Overlay feature has been removed from the options menu for a URL table element. If you have an older workspace with a page overlay visualization and click on the **Refresh Page** menu option, a dialog will appear stating: *This feature has been deprecated due to security concerns.*

Fixed Bugs

The following are prominent fixes made in Data Workbench 6.6 (since the release of Data Workbench 6.52).

- Fix to Best Fit Attribution (algorithmic attribution): Coefficients were all zeros when SGD was used to converge. This has been fixed.

Known Issues

- The **targetbulkupload.exe** requires command-line arguments in English. The output file name should be in English for Adobe Target Export, Profiles and Audiences Export, and Customer Record Service Export.

[Additional Data Workbench Documentation online](#)

Data Workbench 6.52 Update

Data Workbench 6.52 release notes.

Upgrade Issue

AVRO upgraded for processing data source log files.

Fixed Bugs

- Fixed issue where the same decoder name was used for AVRO sources (decoders must be unique).



Note: Error message will now display if you do not have a unique decoder for every log path.

Known Issues

- If you have an older version of the workstation and choose to reprocess a profile, you will get a false warning—a "Decoders must be unique" error will display although you actually have unique decoders. You can exit and relaunch the workstation and the error will no longer appear, or upgrade to this version of the workstation (client) as a permanent fix.

Data Workbench 6.51 Update

Data Workbench 6.51 release notes include new features, upgrade requirements, fixed bugs, and known issues.

To view previous features and fixes for past releases, see the [release notes archive](#).

[New Features](#)

[Upgrade Requirements](#)

[System Updates](#)

Fixed Bugs

Known Issues

New Features

Data Workbench 6.51 includes these new features:

DWB 6.51 Features	Description
Avro Data Feed rollout	Report suite hit data will be delivered in a new Apache Avro data source format providing updated features and new variable types for Adobe Analytics Premium (including additional evars, custom events, and solution variables). See Avro Data Feed .
Bar Graph improves display with color gradients overlay	<p>To improve contrast of elements in the Graph visualization, a gradient of colors can be applied to highlight individual bars using the Cylinder effect or left and right background gradients.</p> <ul style="list-style-type: none"> • No Gradient Overlay. Select to show bars without gradient overlay applied. • Background from Left. Select to show gradation of colors across all bars from left to right. • Background from Right. Select to show gradation of colors across all bars from right to left. • Cylinder. Select to show gradation of colors from the center of each bar to the edge of each bar.
Updates to the Insight.cfg edit tree	<p>The New Layout view is now the default to edit the Insight.cfg configuration file.</p>  <p>Also,</p> <ul style="list-style-type: none"> • An Undo (Ctrl+Z) feature is provided for all but the required top-level values in the configuration tree. • When removing elements you are now provided a dialog to confirm actions to avoid erroneous changes.

DWB 6.51 Features	Description
Double-click to close workstation	Quickly close the workstation (client application) by double-clicking the upper left corner of the title bar.
XML Decoder Enhancements	You now have the ability to use <code>#value</code> tag in XML Paths to pull the value of an XML element.

Upgrade Requirements

Workstation (client) upgrade requirements:

To upgrade the client workstation for version 6.51 from version 6.50, you must run the Workstation Setup Wizard to install the workstation executable and supporting files (using the **Upgrade or repair** mode)—or copy or edit files manually on your server. For this upgrade only, the automated upgrade feature in the workstation from the *Software and Docs* profile is turned off (even though the `Update software = true` is set in the `Insight.cfg` file on your server).

Server upgrade requirements:

Update to the new **Adobe SC meta.cfg** file:

- The `server\Profiles\Adobe SC\Context\meta.cfg` file was renamed to `server\Profiles\Adobe SC\Context\Adobe SC meta.cfg`.
- Updated `Base\Context\meta.cfg` file.

Replace your server build with the updated files.

System Updates

These features have been renamed, deleted, or the installation files or folders were restructured in this release:

- **SSL Connectivity Change.** Certificate generation to upgrade key length was modified to 2048 bits and uses SHA256. This eliminates RC4 ciphers by using modern encryption algorithms.
- Files changed to Read-only.
 - `base\context\serverdetails\detailed status.vw`
 - `base\menu\admin\detailed status for master.vw`
 - `base\menu\admin\detailed status for query.vw`
 - `base\workspaces\admin\dataset and profile\detailed status.vw`
- **Bookmarks alphabetized.** Right-click in the Bookmark panel and select **Alphabetize**. The bookmarks will align based on alphabetic, case-insensitive characters for each language.

Fixed Bugs

The following are prominent fixes made in Data Workbench 6.51 (since the release of Data Workbench 6.5).

- Previously, **Algorithmic Attribution** coefficients displayed as all zeros when using SGD to converge. This is now fixed.

Known Issues

- Exporting an Association Table from an [Association Chord](#) visualization that contains *at least one metric* will result in duplicated elements in the rows/columns of the Association Table. To avoid duplicated elements, create a new Association Table and add the desired elements rather than exporting the elements from an Association Chord.
- If you build an Avro decoder, the default field button won't work. Please work with your account manager to get the appropriate configuration for your implementation.
- Upgrading the workstation (client) from DWB 6.50 must be done manually using the Client Setup Wizard in Upgrade mode. And automatic upgrade will not occur (see Upgrade Requirements for the client).
- Using the Chinese and Japanese install packages for Adobe SC AVRO as a stand-alone might give an error stating `Undefined Metric: \"$Default Metric$"`. No mapping is currently defined for `$Default Metric$`. However, if you are using the Adobe SC AVRO package along with other packages, such as the Attribution-Premium package, then this error will not occur.

Data Workbench 6.5 Release Notes

Data Workbench 6.5 release notes include new features, upgrade requirements, fixed bugs, and known issues.

To view previous features and fixes for past releases, see the [release notes archive](#).

[New Features](#)

[Upgrade Requirements](#)

[System Updates](#)

[Fixed Bugs](#)

[Known Issues](#)

New Features

Data Workbench 6.5 includes these new features:

DWB 6.5 Features	Description
New Association Table and Association Chord visualizations	<p>The Association Table and Association Chord visualizations let you associate metrics with metrics, dimensions, and dimension elements using the Cramer's V algorithm. The Associations Table and Chord compares values using the Cramer's V calculation rather than using Pearson's correlation coefficient as employed in the Correlation Matrix and Correlation Chord visualizations (these can only compare metrics, while the Association Table and Chord can compare metrics, dimensions, and elements).</p> <p>To open, select Visualization > Predictive Analytics > Association Table or Association Chord from the workspace.</p>
New Regression Tree option for Decision Trees	<p>Evaluate a Decision Tree using the Regression Tree option by right-clicking and selecting Options > Regression Tree within a Decision Tree visualization.</p> <p>Updated Decision Tree builder: The new algorithm was introduced for building a Decision Tree. It handles more general data and provides a more informative visualization to improve the precision of the prediction.</p> <p>Improved data sampling module: An updated adaptive sampling scheme helps Decision Tree and Propensity Score achieve higher precision results.</p>

DWB 6.5 Features	Description
Report Server support for Predictive Analysis and Best Fit Attribution visualizations	Best Fit Attribution, Propensity Score, Correlation Matrix, Correlation Chord, Association Table, and Association Chord visualizations are now multi-pass visualizations, allowing them to run in Report Server. However, only one multi-pass visualization can run in a workspace. (See <i>Known Issues</i> below.)
Context-aware visualizations	When you drag and drop within a workspace, any visualization open in the workspace that can accept what is being dragged (metrics, dimension elements, etc.) visually identifies itself, allowing you to see the visualizations capable of accepting the dragged item. The visualization's border is highlighted in blue showing that the metric being dragged to the visualization is capable of accepting the dragged metric.
New Save Filter button	When you select an item within a workspace—a detail table, visualization, filter, or other item—a Save Filter button opens on the toolbar allowing you to <i>create a filter</i> for the item selected, allowing you to enter a name for the filter before saving it to the profile.
New Layout for editing configuration files	The New Layout interface lets you quickly open and edit .cfg, .dim, .metric and other files in the Configuration tree (the config file editor) by right-clicking and selecting from drop-down menus in a workspace.
New Ctrl > O and Ctrl > E quick keys to open and edit files	<p>New <i>Keyboard Shortcuts</i></p> <ul style="list-style-type: none"> • Type Ctrl > O in a workspace to open a visualization (.vw) file. It is the same as selecting Add > Open from the toolbar. • Type Ctrl > E in a workspace to edit a configuration file by default, or browse to open other file types.
New Add > Edit menu option	Right-click and select Edit in a workspace (or from the toolbar) to open .cfg files by default, or Select All to browse to other .dim, .metric and .vw files.
Open recent or pinned files	The Open files feature now lists the most current files and files you want "pinned" to the menu for quick access. Right-click and select Open from menu in a workspace, or select Add > Open and Add > Edit from the toolbar.
Improved Filter descriptions	<p>New easy-to-understand descriptions of the applied filters will now display in these visualizations and editors:</p> <ul style="list-style-type: none"> • Filter Editor (when you hover over the title) • Filter panel on the Finder • Propensity Score visualization • Cluster Builder visualization • Decision Tree Builder visualization
International Formats for Metrics	Format configuration files were added to support international delimiters in metrics.
S/FTP Delivery	<p>An <i>SFTP/FTP export</i> was added to the Export Integration framework. You can now configure settings from the client (workstation) and export using CSV, TSV, Segment Export, or Segment Export with Header using FTP and SFTP protocols, allowing you to send files to servers.</p> <p>Select any of the exports by right-clicking on a <i>Detail Table</i>. Once selected, an export configuration table opens allowing you to add or update export settings.</p>

DWB 6.5 Features	Description
Using <i>Windows Certificates Store</i> in the workstation (client)	You can now store the SSL certificate and private key for the Data Workbench Client (Workstation) in the <i>Windows Certificate store</i> for SSL communication with servers. Using the <i>Windows Certificate Store</i> may be preferable for those who manage certificates in a single store. (See <i>Known Issues</i> .)
String Encryption as a service	A <i>new encryption feature</i> encrypts strings and stores them with keys in the <i>Window's Credentials Store</i> .
Windows in workspace resize proportionally	Windows in a workspace now resize proportionally when you resize from a corner by holding down the <Shift> key.
Correlation Matrix recalculates automatically	Correlation Matrix no longer requires a Recalculate option in the right-click menu.
Updates to User Administration of Group Members	Changes to <i>Access Control.cfg</i> and <i>User List.cfg</i> added to Base package for use with <i>User Admin of Group Members</i> .
Updated Query Memory Limit	Updated Query Memory Limit setting in <i>DPU.cfg</i> from <i>unsigned int</i> to <i>__int64</i> is now available for those who wish to use more than 4 GB for this value.

Upgrade Requirements

Follow these requirements and recommendations when upgrading to Data Workbench 6.5.

- Changes in the **Components for Processing Servers\Communications.cfg** file require you to update this file for the DWB 6.5 release. The *SourceListServer*, *SegmentExportServer*, and *NormalizeServer* entries were removed. (DPU's should not be running *sourcelist*, *segment export*, or *normalize servers*.)

System Updates

These features have been renamed, deleted, or the installation files or folders were restructured in this release:

- Correlation Chord, Correlation Matrix, Association Chord, Association Matrix, Propensity Score, and Best Fit Attribution visualizations are now **multi-pass visualizations**, allowing them to run in Report Server.



Important: You can only have one multi-pass visualization in a workspace.

When there are more than one multi-pass visualizations in a workspace, Report Server will fail to generate reports by default and throw the following error:

Too many Multipass visualizations in workspace (has #, 1 allowed).

Avoid this error by updating your *ReportServer.cfg* file or add this line to your existing file in the Reporting section.

Max Multipass Per Slice = int: 1

The *Max Multipass Per Slice* value must remain set at 1 (See *Known Issues*).

- Changes made to files in the *Server\Menu\Admin* folder.
 - Removed Lookups.
 - Added Archive Files and User Files.
 - Modified Files, Export Files, Log Files.

Updated files include:

```
Base\Menu\Admin\Order.txt (changes to menu)  
Base\Menu\Admin\Files.vw (removed Lookups and Events string, added  
Archive and Users strings)  
Base\Menu\Admin\Archive Files.vw  
Base\Menu\Admin\User Files.vw
```

- Changes made to files in the `Base\Context\ServerDetails` folder:

```
Base\Context\ServerDetails\Archive Files.vw  
Base\Context\ServerDetails\Export Files.vw  
Base\Context\ServerDetails\Log Files.vw  
Base\Context\ServerDetails\User Files.vw  
Base\Context\serverdetails\files.vw  
Base\workspaces\admin\dataset and profile\server files.vw
```

- Changes made to the *self-administration of member access*.

A new file in the *Base* and *Server* packages includes a `User List.cfg` for Admins to update for member access.

Fixed Bugs

The following are prominent fixes made in Data Workbench 6.5 (since the release of Data Workbench 6.4).

- Fixed block decoding bug that was introduced in release 6.4. Issue was encountered during processing of a very large visitor.
- Fixed alignment bug introduced with compiler upgrade. Issue affected Replication in release 6.4

Known Issues

- Use of the *Windows Certificate Store* is limited to the English only (no Chinese or Japanese language support).
- *Regression Analysis* on graphs does not recognize new workspace selections. A possible workaround is to redo the regression after making a new selection.
- The *Max Multipass Per Slice* value must remain set at 1. You cannot have more than one of the following visualizations in a single workspace intended for Report Server: Propensity Score, Best Fit Attribution, Association Matrix, Association Chord, Correlation Matrix, or Correlation Chord.

[Additional Data Workbench Documentation online](#)

Data Workbench 6.4 Release Notes

Data Workbench 6.4 release notes include new features, upgrade requirements, fixed bugs, and known issues.

To view previous features and fixes for past releases, see the [release notes archive](#).

[New Features](#)

[Upgrade Requirements](#)

[System Updates](#)

[Fixed Bugs](#)

[Known Issues](#)

New Features

Data Workbench 6.4 includes these new features:

DWB 6.4 Features	Description
Exporting to Analytics Core Services	The Customer Record Service (CRS) export feature lets you export Data Workbench data from the Details Table to the Adobe Analytics Core Services to integrate with other Analytics' capabilities, including <i>Reports & Analytics</i> .
Workstation Setup Wizard	Set up the Data Workbench (Client) using a step-by-step installation wizard. Download, set options, install the workbench, and sync up with servers.
Enhanced Workstation Configuration Experience	After installation of the workstation, the Configure Connections to the Server workspace will open with additional information about entering server connection information in the Insight.cfg file. You can also view the connection status to your servers and select profiles.
Presentation Layer	Annotate and clarify visualizations using a presentation overlay. Add text call-outs, arrows, images, and color coding to highlight and clarify your data, and then share with others.
Metric Dim Wizard	Employ a step-by-step wizard to facilitate building metric dimensions.
User Administration of Group Member Access	Administrators can give workstation users the partial ability to manage access control for custom groups.
Locking Profiles in the Workstation	You can prevent profiles from being overwritten by users working in the Profile, Dimensions, Reports, Workspaces, Metrics, or Filters managers. In the Profile Manager , save the Internal.cfg file to a custom profile to prevent multiple profile files in your system from being overwritten on the server.
New User Interface Features	Data Workbench 6.4 adds new workspace icons, tool tips, splash screens, and an <F1> shortcut to the help. It also lets you open your log files by selecting the Help > Open Trace Directory from the toolbar.
Updated Clustering algorithm	Expectation Maximization added to Clustering feature. This is an <i>Adobe Analytics Premium</i> feature.
Updated Logging information	Data workbench now uses an expanded logging framework "L4" which provides the ability to configure logging based on the need. The default implementation that comes with the 6.4 package provides vital information on the software processing. Logging can be expanded with additional information to troubleshoot server events and help analyze underlying issues, including additional information for associated server, client and report server. For additional support in implementing additional L4 logging, please contact your account manager.
New cfg file for ExportIntegration.exe logging options	A new httpLoggingEI.cfg configuration file (located at server\Admin\Export\httpLoggingEI.cfg) lets you stop INFO logging to the HTTP.log file during Export Integration exports. (The CRS, TNT, and MMP exports already capture verbose logging in individual export log files.) A <i>true</i> setting starts INFO logging (for testing and detailed reporting) to the HTTP.log file, and a <i>false</i> setting stops verbose logging. For a <i>false</i> setting, only a WARNING/ERROR level messages will be sent to the HTTP.log file.

DWB 6.4 Features	Description
Zoom feature for Graph visualizations	<p>Use the zoom feature to better view metric labels when values reach a higher disparity. Previously the label would disappear with the change in the contrast of values—for example, when you set a higher metric regression value against previous values. You can now zoom in to the visualization by clicking <Ctrl> and moving the mouse wheel while hovering over the graph.</p>
New Color Picker tool	<p>A new color picker lets you select colors from a simple palette of colors, or select the Advanced tab to pick from a gradation scale or enter your own RGB values.</p> <div data-bbox="584 487 1481 967" style="display: flex; align-items: center;">   </div>
Finders now export more meta information	<p>More meta information is provided when exporting dimensions and metrics from the Finder.</p> <ul style="list-style-type: none"> Metrics Finder output now includes <i>Name</i> and <i>Formula</i>. Dimensions Finder output includes <i>Name</i>, <i>Type</i>, and <i>Parent</i>.
Insight.exe and InsightSetup.exe are now digitally signed.	<p>These executables are now digitally signed to ensure that the software downloads have not been altered or corrupted.</p>
Date format options	<p>You can change the date format based on your locale in the Standard Time Dimensions.cfg file. Change the default <i>MM/DD/YYYY</i> format to the <i>DD/MM/YYYY</i> format or choose other options.</p>
Files visualization broken out	<p>The Files visualization (Admin > Files) for Base profiles will not include larger directories (removed Logs, Exports, and Lookups) when reporting. This will increase the speed in displaying the report.</p> <p>The larger directories now have their own individual reports (Admin / Export Files, Lookup Files and Log Files).</p>
Device Atlas with In-Memory Cache	<p>The DeviceAtlas.bundle file now uses in-memory cache to greatly improve the performance of look-ups.</p>
Updated Chord visualization	<p>Improved visibility when hovering over a section when viewing the Chord visualization.</p>
Drag dimensions from Finder to a Detail Table	<p>From the workstation, you can now drag dimensions from Finder panel directly to the Detail Table in a workspace.</p>

Upgrade Requirements

Follow these requirements and recommendations when upgrading to Data Workbench 6.4.

A *Important: It is recommended that you use the newly installed default configuration files and customize them, rather than moving files from a previous installation—with these exceptions:*

- **Add Excluded Processes** for MS System Center Endpoint Protection in Windows 2012 Servers for the following executables:

- **InsightServer64.exe**
- **ReportServer.exe**
- **ExportIntegration.exe**

This will allow "white list" rights for these interfacing executables.

- **Update the Trust_ca_cert.pem certificate on the servers.**

- **Reorganization of Attribution Profiles.**

- The *Attribution* folder was renamed to **Attribution - Premium** (found in the default installation at *Profiles\Attribution - Premium*).

- The *Premium* profile was removed and the workspace moved to the new **Attribution - Premium** folder.

- **Update Attribution-Premium settings.** If you have customized profiles with parameter settings that override the default *Adobe SC* profile, then you need to update the custom fields in these configuration files:

- **Decoding Instructions.cfg**
- **SC Fields.cfg**

- Because of this reorganization, you will want to remove the old *Attribution* and *Premium* folders from your server installation.

Change these settings

```
Profile = profileInfo:
  Active = bool: true
  Directories = vector: 6 items
    0 = string: Base\\
    1 = string: Geography\\
    2 = string: Predictive Analytics\\
    3 = string: Adobe SC\\
    4 = string: Attribution\\
    5 = string: Premium\\
```

to these settings:

```
Profile = profileInfo:
  Active = bool: true
  Directories = vector: 5 items
    0 = string: Base\\
    1 = string: Geography\\
    2 = string: Predictive Analytics\\
    3 = string: Adobe SC\\
    4 = string: Attribution - Premium\\
```

- **Update custom Meta.cfg files (if necessary).**

The **Meta.cfg** files in **Base\Context** and **AdobeSC\Context** folders have been updated in this release.

If you override the **meta.cfg** file during installation, then your profile copy needs to be updated with this these parameters and the **metadata vector** appropriately entered:

```
94 = meta:
  path = string: SegmentExport:CRS Configuration/CRS Attributes
  acceptable children = vector: 1 items
    0 = Template:
```

```

name = string: CRS Attributes
value = CRSAttributeConfiguration:
  Attribute Name = string:
  Attribute Type(int,string) = string:
  Field Name = string:

95 = meta:
  path = string: SegmentExportQuery:CRS Configuration/Report Suite
  acceptable children = vector: 1 items
  0 = Template
    name = string: Add Report Suite
    value = string:

```

- **Set Report Server permissions** to generate Microsoft Excel reports On Windows 2012 servers.

1. Set permission of the root folder (**E:\ReportServer**) to *Everyone = full control*.
2. Create the following folders with appropriate permissions:

```

C:\Windows\SysWOW64\config\systemprofile\AppData\Local\Microsoft\Windows\INetCache
C:\Windows\System32\config\systemprofile\AppData\Local\Microsoft\Windows\INetCache
C:\Windows\System32\config\systemprofile\Desktop
C:\Windows\SysWOW64\config\systemprofile\Desktop

```



Note: If you are running Report Server on Windows Server 2012, you need to have Windows Server 2012 R2 installed.

3. Assign "SYSTEM" as the owner for these folders.

- **Add fonts to the Report Server.**

In the **ReportServer.cfg** file, add these fonts (for all languages):

```

Fonts = vector: 3 items
  0 = string: Arial
  1 = string: SimSun
  2 = string: MS Mincho

```

- **Update your version of Microsoft Excel** (if necessary).

With the release of Data Workbench 6.4, support for Excel 2007 has been discontinued. Also because Data Workbench only runs on Microsoft Windows for 64-bit architecture, it is recommended that you also install a 64-bit version of Microsoft Excel.

- **64-bit architecture** required for Workstation (Client) installation.

- **Run the Workstation Setup Wizard.**

Install the new version of the workstation (client) by downloading and launching **InsightSetup.exe** and stepping through the setup instructions. The setup wizard will install your files to a new location by default:

Program files are now saved by default to:

```
C:\Program Files\Adobe\Adobe Analytics\Data Workbench
```

Data Files (profiles, certificates, trace logs, and user files) are now saved by default to:

```
C:\Users\<username>\AppData\Local\Adobe\Adobe Analytics\Data Workbench\
```

- **Add fonts to the Workstation.**

In the **Insight.cfg** file, add these fonts (for all languages):

```

Fonts = vector: 3 items
  0 = string: Arial
  1 = string: SimSun
  2 = string: MS Mincho

```

System Updates

These features have been renamed, deleted, or the installation files or folders were restructured in this release:

- The **Base.zip** folder is no longer included in the version update package.
- The **DeviceAtlas.bundle** file now uses an *in-memory cache* to improve the performance of lookups.
- In the **Log Processing.cfg** file, the *Chunk Size* parameter under *Log Sources* was removed.
- In the **Disk Files.cfg** file, the *Detect Disk Corruption* parameter was removed in these locations:

```
\server\components\disk files.cfg  
\server\components for processing servers\disk files.cfg
```

- New service descriptions for *Adobe Analytics Premium Services* and for *Adobe Analytics Premium Report Services* in the executable properties.
- The *Master Marketing Profile Export* feature in the Details Table was renamed to **Profiles & Audiences Export**.
- The *Test and Target Export* feature in the Details Table was renamed to **Adobe Target Export**.

Fixed Bugs

The following fixes were made in Data Workbench 6.4 (since the release of Data Workbench 6.31).

- Propensity score wasn't resetting when rerunning different inputs in the same workspace. This now resets properly.
- No countable dimensions available when first opening the Correlation Matrix has been fixed.
- Export of Target segments were failing because the mboxPC field was missing. This is now fixed.
- ID request formatted correctly. Using the mbox3rdpartyId identification instead of default PCIDs caused Adobe Target to reject requests generated via the Target/Data Workbench integration (using the **ExportIntegration.exe**). This ID request is now being formatted correctly and throughput is successful.
- Report Server memory leak when exporting to Excel has been fixed.

Known Issues

The following are known restrictions in Data Workbench 6.4.

- **ExportIntegration.exe** requires command-line arguments in English. The output file name should be named in English for *Adobe Target Export*, *Profiles and Audiences Export*, and *Customer Record Service Export*.
- In the *Profiles and Audience Export*, entering unauthorized characters ([CR] or [TAB]) as column names generates incorrect logs resulting in data not exporting correctly.
- In Chinese and Japanese versions, Unicode character encoding issue might be encountered in the Path Browser.

[Additional Data Workbench Documentation online](#)

Exporting to Analytics Core Services

The Customer Record Service (CRS) export feature lets you export Data Workbench data to the Adobe Analytics Core Services to integrate with other Analytics' capabilities, including *Reports & Analytics*.

From a **Detail Table** (right-click **Tools > Detail Table** in a workspace), you can set attribute values and the variables required to integrate with Analytics' Reports & Analytics (using Adobe Pipeline Services).

1. Right-click the table header and click **New Customer Record Service**.



2. **Name the export file and save.**

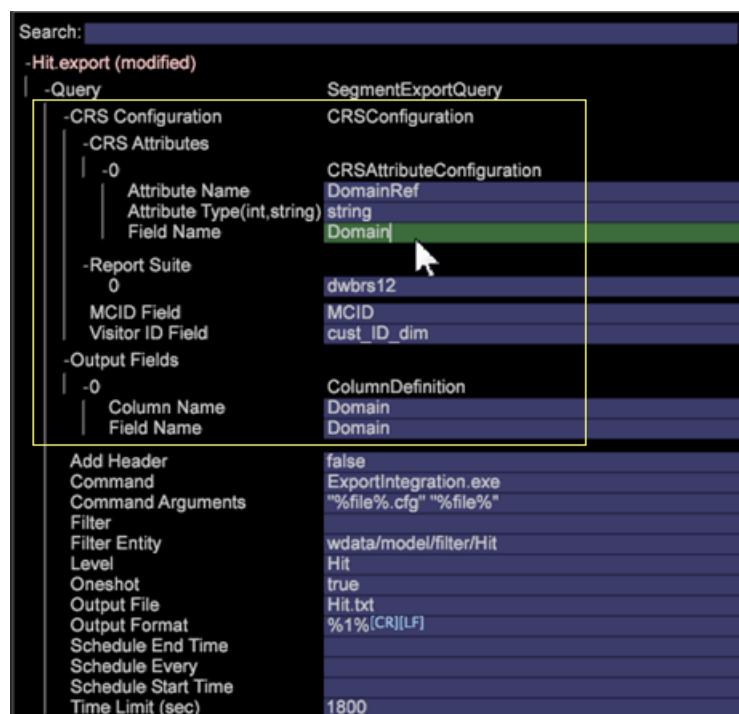
The export file edit window will open.

3. **Open Query > CRS Configuration.**

4. **Right-click CRS Attributes > Add New.**

5. **Enter CRS Attributes parameters.**

Open the new entry and enter or verify values in the *CRS Attributes* section of the export file:



Attribute Name	Name of the <i>Customer Attributes</i> variable displayed in <i>Reports & Analytics</i> .
Attribute Type	<p>This parameter accepts values of <i>(int, string)</i>.</p> <p>Note: If an attribute is not subscribed to in Analytics:</p> <ul style="list-style-type: none"> • The attribute will be created with any valid attribute type supported by Analytics (for this release it is limited to only string and int).

	<ul style="list-style-type: none"> If an invalid attribute type is entered, then you will receive an error stating a failure to subscribe to Analytics. <p>If an attribute is already subscribed to in Analytics:</p> <ul style="list-style-type: none"> Make sure to enter the right attribute type for the already subscribed to attribute. If you enter the wrong type for the attribute, then its behavior will be dependent on Analytics' handling of attribute types.
Field Name	<p>Name of the dimension or metric from which the attribute values are selected.</p> <p> Note: The Field Name under CRS Attributes should be the same as the Output Fields > Field Name (which is populated automatically based on the attribute selected). If the Field Name is invalid then the export will not run.</p>

6. Right-click Report Suite > Add New.
7. Enter **Report Suite** parameter.

Open the new entry and enter or verify values in the *Report Suite* section of the export file:

Report Suite	<p>Name of the report suite in <i>Reports & Analytics</i> identifying the <i>Customer Attribute</i> variables being exported.</p> <p> Note: Although <i>Reports & Analytics</i> lets you add to multiple report suites, Data Workbench 6.4 will only export a single report suite identified at index 0.</p> <p>The report suite name entered in this field is the report suite ID (and not the name of the report suite).</p>
---------------------	--

8. Enter **MCID Field** parameter.

MCID field	<p>Name of the dimension in your profile that represents the <i>Adobe Marketing Cloud ID</i>. This is a mandatory field and any invalid dimension value entered will not export.</p>
-------------------	--

9. (optional) Enter **Visitor ID Field** parameter.

Visitor ID Field	<p>If the user wishes to send any other custom ID for a visitor in his/her data, this is where they enter the name of the dimension which represents the custom visitor id. This is an optional field and can be left empty.</p>
-------------------------	--

Workstation Setup Wizard

Data Workbench provides a set up wizard to install the workstation (client) application.

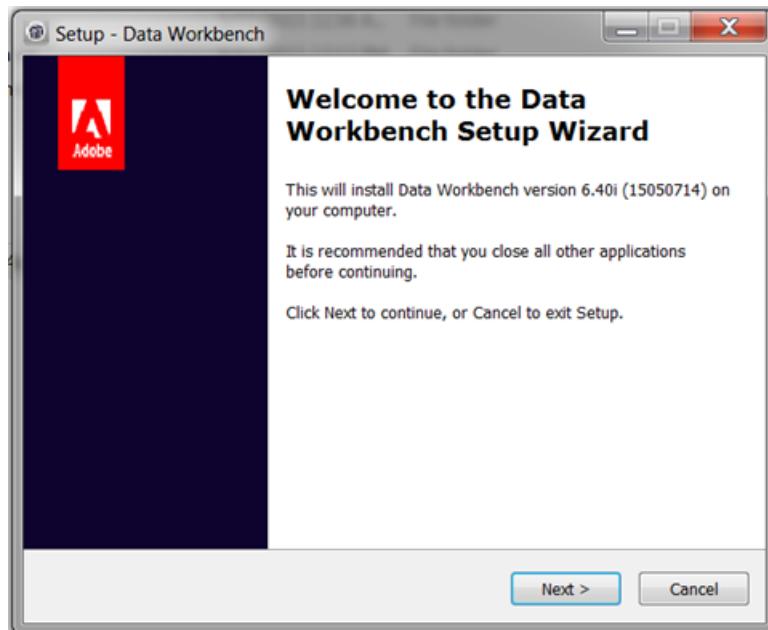
Installing the Workstation using the Setup Wizard

Launch the installation wizard executable and walk through each step to install the workstation client program. After installation of the workstation, you can connect to servers and profiles.

1. Double-click the workstation installer executable.

2. Click **Yes** to allow the program to install on Windows.
3. Select a **Language** for the setup wizard.

The wizard will open:



4. Click **Next** on the **Welcome to Data Workbench Setup Wizard** dialog.
5. Select to install a **New Installation** or to **Upgrade or repair** an existing installation.

New Installation overwrites any previously installed files.

Upgrade updates your Workstation to the latest version or lets you repair an existing installation. Data Workbench will compare installed **Insight.exe** files and run the Workstation Setup Wizard if a newer version of the client is available.

6. Select install location:

Typical installs to a default folder and location.

- Program files are saved by default to:

C:\Program Files\Adobe\Adobe Analytics\Data Workbench

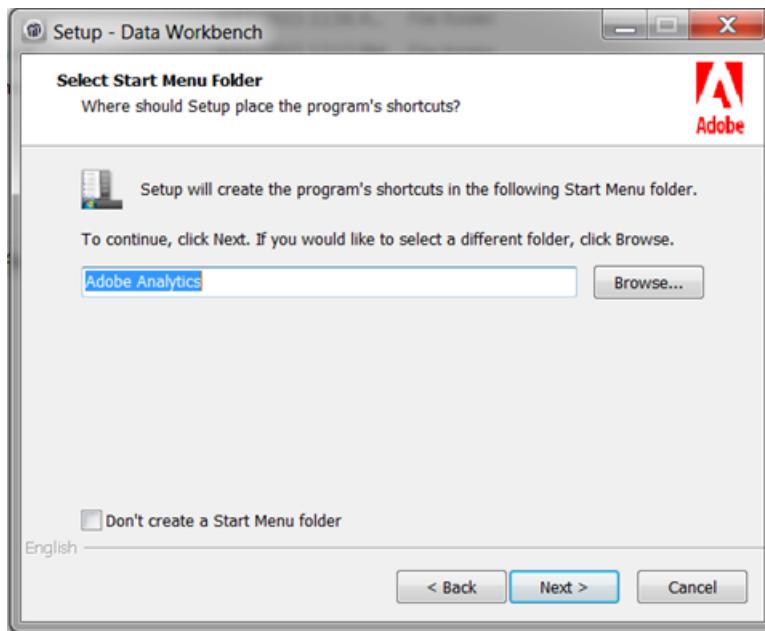
- Data Files (profiles, certificates, trace logs, and user files) are saved by default to:

C:\Users\<username>\AppData\Local\Adobe\Adobe Analytics\Data Workbench\



Important: A generic **Insight.cfg** file without server details will be installed initially. It is recommended that you use the newly installed **Insight.cfg** file and customize it rather than moving a file from a previous installation. Because the path for installing the workstation has changed, the addition of fonts, removal of the User Folder, and the removal of the TraceFileComponent is recommended.

7. (optional) Select **Custom** to choose the language package and the location of the program and data files.
8. Select location for **shortcuts in the Start Menu**.



Click **Don't create a Start Menu folder** to not install a shortcut on the Windows Start Menu.

9. Click **Next**. A summary of selected file location paths and languages will display. Click **Install**.
10. Locate the **Data Workbench Certificate**.

If the setup wizard cannot find the Data Workbench certificate during installation, it will open a dialog to browse to the location of the certificate (a **.pem** file located by default in the client **Certificates** folder), or click **Skip** to find the certificate after installation.

Click **Install** after locating the certificate.

11. After the setup wizard is complete and Data Workbench installed, click **Finish** to complete setup.

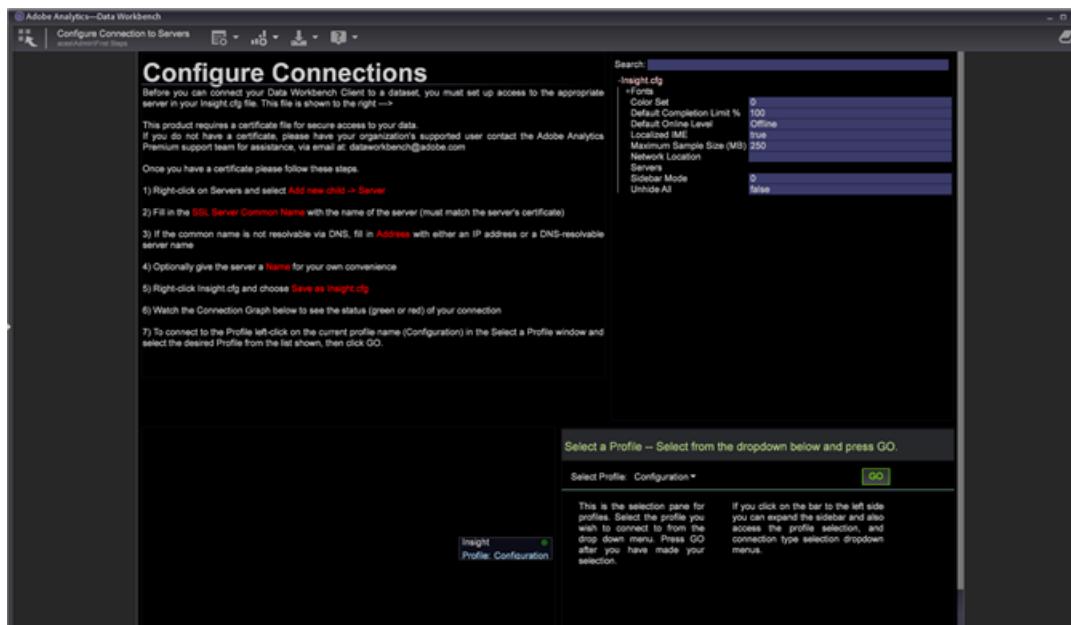


*Note: The default log location for the Workstation Set up Wizard at
C: \Users\<userName>\AppData\Local\Temp.*

Select the **Launch application** checkbox to open the workbench after setup.

12. **Configure connections** to servers in **Insight.cfg** file.

After installation of the workstation, the Enhanced Workstation Configuration Experience workspace will open with additional information about [entering server connection information](#) in the *Insight.cfg* file and an option to select a profile from the drop-down. You can also view the connection status to your servers.



Installation Folders

The Data Workbench folder structure has two installation locations:

- **Program Files**

The **Insight.exe** and supporting client files (**Insight.ini**) are now located by default at
 C:\Program Files\Adobe\Analytics\DataWorkbench

- The **Appdata** folder.

Insight.cfg, profiles, certificates, trace logs, and user files are now located by default at
 C:\Users\<Winuser>\AppData\Adobe\Analytics\DataWorkbench\

You can set the path for the **Appdata** folder in the **Insight.ini** file:

```
[InitialSettings]
AppDataFolder=C:\Users\mhiatt\AppData\Local\Adobe\Adobe Analytics\Data Workbench\
Locale=en-us
```

Uninstalling the Workstation

Data Workbench now includes an executable to uninstall the workstation (located by default at **Program Files\Adobe\Adobe Analytics\Data Workbench\unins000.exe**).

Launch and follow steps to remove the Data Workbench Workstation files from your hard drive.



Note: You can launch the **unins000.exe** executable from the folder, using the **Uninstall Data Workbench** shortcut from Start Menu, or from Control Panel > **Program and Features**.

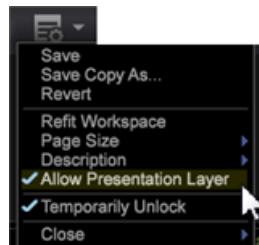
Presentation Layer

The Presentation Layer lets you mark up and annotate your workspace visualizations and then publish with your call-outs and comments. Add text descriptions, graphic objects, callout arrows, color coding, images, and other features in an overlay to add annotations and clarify important data points, and then share with stakeholders.

Add Annotations to your Visualizations:

1. Open a workspace.
2. Click **Allow Presentation Layer**.

Toggle the command in this menu to allow or disallow working in the presentation layer. A checkmark will appear when the presentation layer is allowed.



When you are in the presentation layer, a clickable icon will appear in the right side of the toolbar.

 This clickable icon shows that you are in the **Hide Presentation Layer** mode but not able to see annotations.

3. Click icon to toggle to **Show Presentation Layer**.

View annotations in the presentation layer.

 This clickable icon shows that you are in the **Show Presentation Layer** mode but not able to edit.

 **Note:** You can also right-click in the workspace to change modes using menu commands.



4. **Edit and add callout features.**

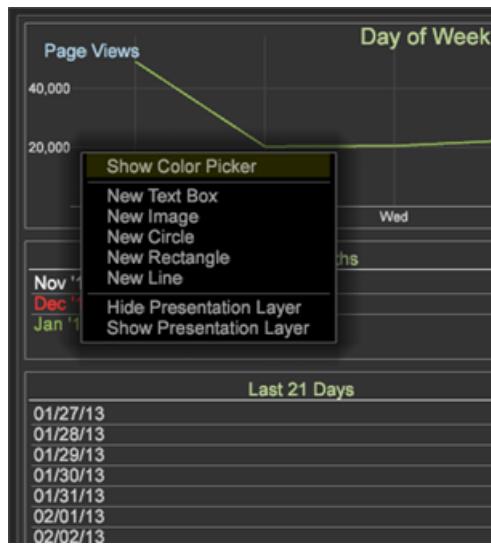
Click icon again to capture a static representation of the workspace visualization and open an overlay to add or edit annotations.

 This clickable icon shows that you are in the **Edit Presentation Layer** mode to add and edit annotations.

A gray overlay appears while in edit mode.

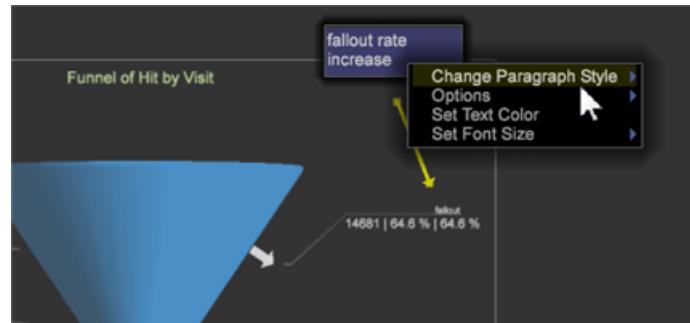
5. **Add callout features.**

Right-click the visualization to add a new text box, arrows, images, and other callout features to highlight and annotate for presentation.



6. Set graphic features.

Select a graphic object and right-click to set options. You can set colors for a box or other graphic object, adjust text settings in a text box, and add arrows or set layering for lines.

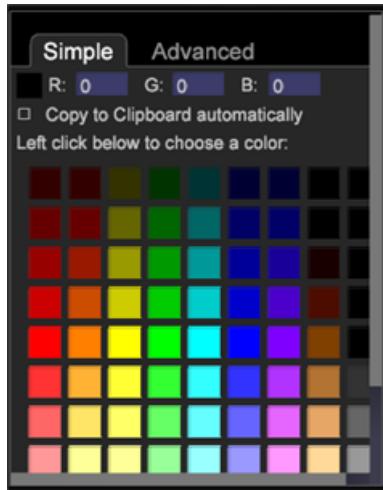


7. Add images to the workspace.

Right-click to add your .png and .jpg images to the overlay and resize.

8. Assign colors to graphic objects.

You can select objects in the presentation layer and assign colors using the color picker.



9. Export and share presentation layer.

After annotating your workspace visualizations, you can export the presentation layer with visualizations and share as a .png graphic file.

Click **Export > Export PNG**.

Metric Dim Wizard

Create Dimensions defined by metric attributes (Metric Dims) using a step-by-step wizard. Then test, preview, and save the new Metric Dim to your Dimensions list.

A Metric Dim converts a metric into a new dimension. For example, a Metric Dim based on a metric of Page Views and level of Visitor will display dimension elements based on the total Page Views for each Visitor. It lets you extend a currently defined metric based on dimension elements to create and save as a new dimension.

Step 1: Select Dimension and Metric

1. Open the Metric Dim Wizard.

In a workspace, right-click and select **Tools > Create Metric Dim**.

2. Name the Metric Dim.

As a default, the Name field will auto-populate based on Level and Metric selections.

3. Select a Dimension Level.

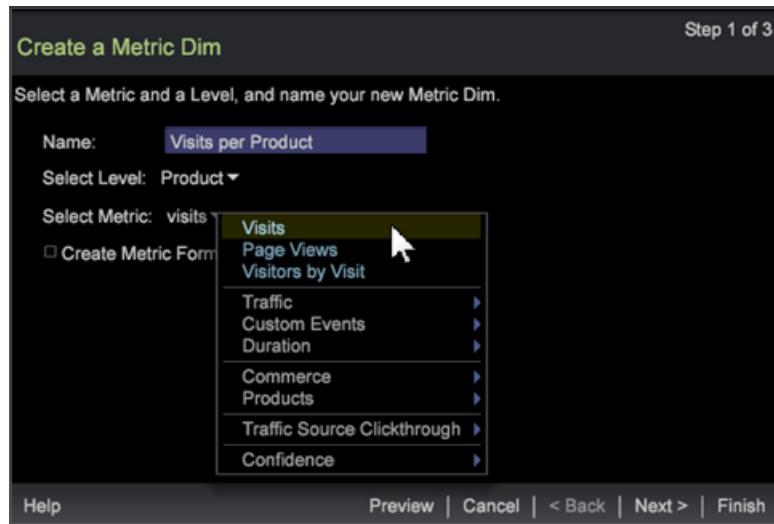
The dimension level is the parent dimension containing all constituent element values to filter input and define a dimension type.

Dimension levels include:

- Clickthrough
- Hit
- Product
- Visit
- Visitor

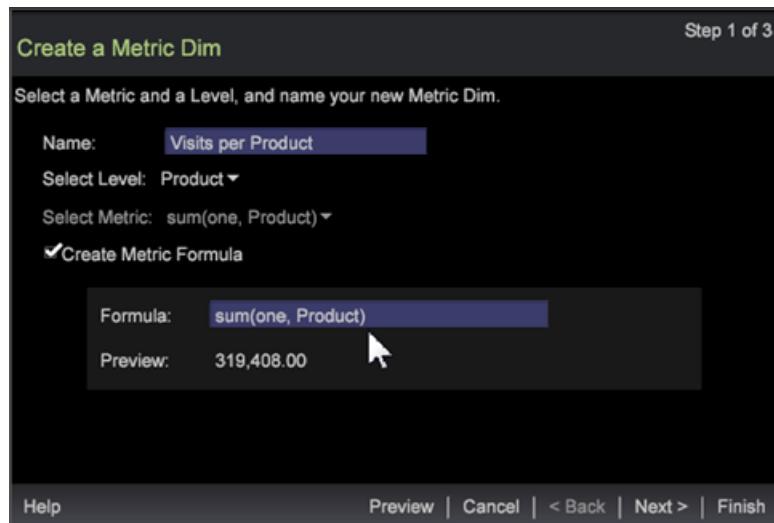
4. Select a Metric.

Select a pre-built metric to extend and save as a metric dim.



5. (optional) **Create a Metric Formula.**

Click the box to enter a custom metric formula. The calculated Preview value will appear validating the expression.



You can add your own *metric expression* or cut and paste from another metric editor or visualization. Syntax errors, formula errors, undefined filters, and other errors are reported in the wizard.

6. Click **Next**.

Step 2: Format and Set Buckets

1. Select a **Format** for the new metric dim.



The format defines how the metric will be presented when opened in a visualization. These formats are selected [printf standards](#), defined below:

```
%[flags][width][.precision][length][specifier]
%0.2lf = % _ [flags] 0 [width] .2 [.precision] 1 [length] f[ specifier]
```

In the **Preview** field, a value will appear based on the metric and format selected.

2. Add Bucket Count expression.

You can define a metric dim with various ranges, or buckets. This returns subsets of elements based on size, such as [0-4], [5-10],...). Elements of the Dimension Level relate to the elements whose range contains the value of metric. See the bucket expression description at [Syntax for Dimension Expressions](#).

3. Click **Preview** to open table of Metric Dim values before saving.



The table details metric values per metric dim.

4. Click **Show in Dimension Menu** to add the newly created dimension to the **Dimension** tab in the **Finder**.
5. Click **Next**.

Step 3: Finish and Save

1. Select to launch the Metric Dim Editor, graph visualization, or table after saving.

Field	Description
Launch Metric Dim Editor	Open the Metric Dim Editor.
Launch Graph	Launch a PNG graphic of the table.
Launch Table	Launch a table in the workspace with values in columns listing values of the new metric dim compared with values of the selected metric.

2. Click **Finish** and save.

A save dialog will open allowing you to save the file. The selected options to view values will open in the workspace.

User Administration of Group Member Access

Administrators can give workstation users the partial ability to manage access control for custom groups.

Self-administration of group member access gives rights to non-administrators to add and delete members in a custom group. The administrator creates a **User List** file and sets up group access in the **Access Control.cfg** file for the new group members.

Accessing the Servers Manager

Setting up the **User List** file and synching it with the **Communications.cfg** file is done in the **Servers Manager** workspace.

1. On the worktop, click the **Admin** tab > **Dataset and Profile** tab.
2. Open the **Servers Manager** workspace.
3. Right-click *>your server name* in the diagram and select **Files**.

The server files will open in a table with columns *File*, *<server name>*, and *Temp*.

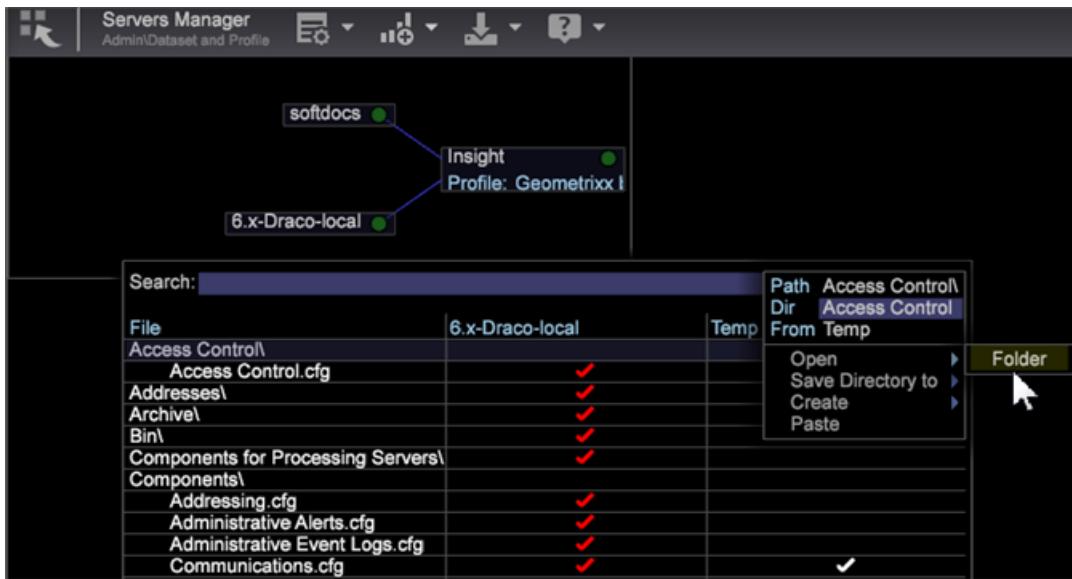
4. **Make Local** by right-clicking in the **Server** column of a server file (for this feature **Access Control** and **Components/Communications.cfg**).

A white checkmark will appear in the **Temp** column. You can edit in the **Temp** folder. Then right-click the checkmark and **Save To** the server. (It turns red when synched with server).

1. Create a **User List.cfg** file

The administrator needs to create a **User List.cfg** file in the **Access Control** folder.

1. Right-click **Access Control** row in the **Temp** column and select **Open > Folder**.



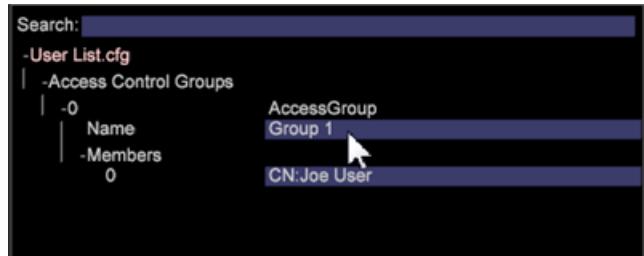
The Access Control folder in the Temp folder will open listing a single **Access Control.cfg** file.

2. Add another text file to this folder and name it **User List.cfg** (next to the **Access Control.cfg**).
3. Add the following parameters to the **User List.cfg** file.

The User List file should contain a vector of **AccessGroup** objects, and each **AccessGroup** object should have a name and a vector of strings called **Members**.

```
Access Control Groups = vector: 1 items
0 = AccessGroup:
    Name = string: Group 1
    Members = vector: 1 items
        0 = string: CN:Joe User
```

You can then edit and add users this in the Workstation view of the **User List.cfg** file.



Here's the most basic parameters to add to the **User List.cfg** file. The Members can then be added in the Workstation view.

```
Access Control Groups = vector: 1 items
0 = AccessGroup:
    Name = string:
    Members = vector: 0 items
```

Important: As with any **.cfg** file that you manually edit, make sure to use spaces instead of tabs and to pay close attention to the whitespace and syntax. A mistake in this file will cause Adobe Insight Server to ignore the User List file.

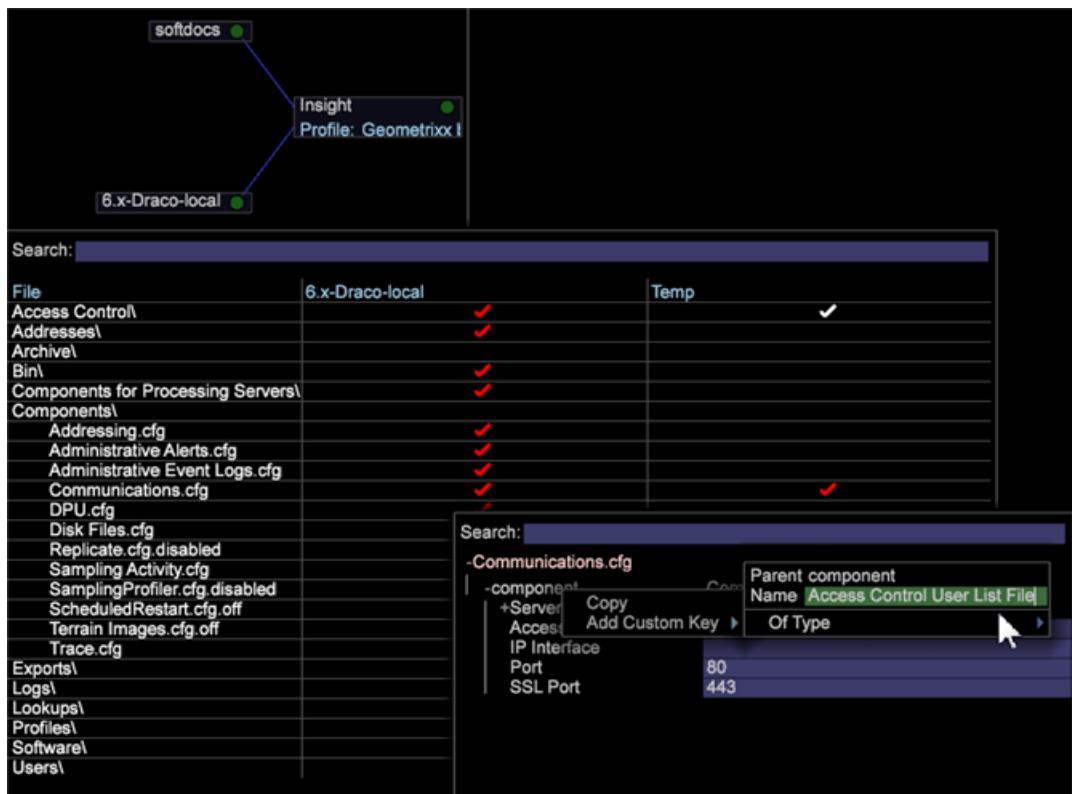
The **Name** field in each **Access Group** will be referenced within the **Access Control.cfg** file.

Note: Only valid members with directory service prefixes, such as **CN:** or **OU:** are accepted, and these cannot contain wildcard character (*).

2. Set up the **Communications.cfg** file

An administrator first enables this feature by opening the **Components > Communications.cfg** file and adding a new key with the name **Access Control User List File**. The string value of this key is the path where this new file will be located.

1. From the server files, click **Components** and right-click the checkmark in the **server** column. Click **Make Local**.
A white checkmark will appear in the **Temp** column.
2. Right-click the checkmark in the **Temp** column and select **Open > in Workstation**.
3. In the **Communication.cfg** file, right-click **component** and select **Add Custom Key**.



4. Type the **Name** as *Access Control User List File* and set **Of Type** as *String*.

Note: You cannot create the new list file as a Path. To remedy this, you need to save the file, open it in an editor (Notepad), and change "String" to "Path":

Before:

```
component = CommServer:
Access Control File = Path: Access Control\\Access Control.cfg
Access Control User List File = string: Access Control\\User List.cfg
```

After:

```
component = CommServer:
  Access Control File = Path: Access Control\Access Control.cfg
  Access Control User List File = Path: Access Control\User List.cfg
```

5. Save the **Communications.cfg** file and (if necessary) save it to the server. This will restart components in the server to make sure you haven't made any mistakes that could prevent the **Communications.cfg** file from being parsed.
6. If your system includes processing servers, modify the configuration file in the **Components for Processing Servers.cfg** file.
7. Right-click **Communications.cfg** and save to server.

The Data Workbench administrator can now confirm that the intended user(s) have access to the user list file and allow the users to manage the group. The user(s) will be able to open the User List file, edit it, and add and remove CN or OU members as needed.

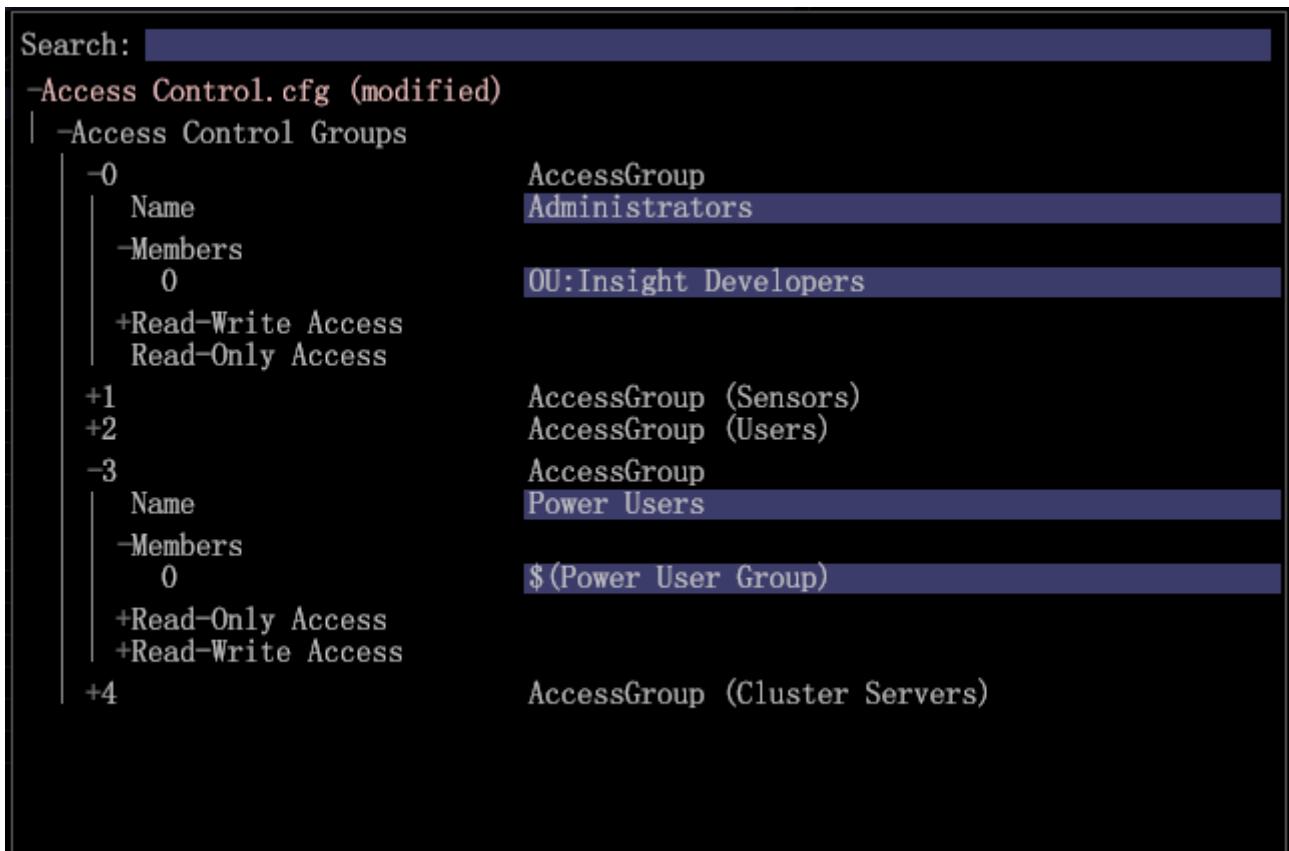
3. Synch up the Access Control.cfg file

The administrator can then edit the **Access Control.cfg** and insert references to the group(s) defined by the *User List* file.

The references to the group(s) should be inserted just like any other member, but with the following syntax:

```
$(Group Name)
```

Where "Group Name" matches what's defined in the user list file, including white spaces.



At this point the Data Workbench administrator can confirm that select group users have access to the user list file. The select users can then open the **User List.cfg** file, edit it, and add and remove CN or OU members as needed.

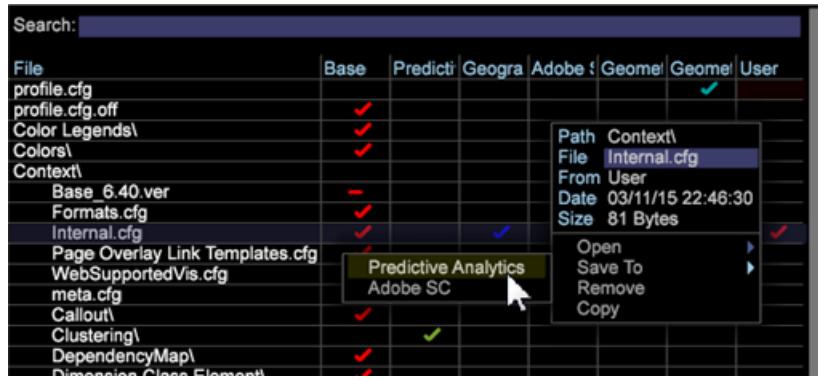
Locking Profiles in the Workstation

The **Internal.cfg** file applied in the Profile Manager prevents changes by users to your custom profiles by the Profile, Dimensions, Reports, Workspaces, Metrics, and Filters managers.

You can prevent profile files from being modified and overwritten when using the managers by saving the **Internal.cfg** file to your custom profile in the Profile Manager. This configuration file prevents users from overwriting multiple files when working in the managers (accessed from the **Admin > Profile** menu).

Locking Profiles in the Profile Manager

1. In the workspace, right-click **Admin > Profile Manager**.
2. In the **Profile Manager**, right-click **Context > Internal.cfg** and **Make Local**.
3. Right-click checkmark in **User** column and save to a <custom profile>.



Note: Only changes to profile files by the managers are prevented when saving the **Internal.cfg** to a custom profile in the Profile Manager. You can still save workspaces to the server from the worktop using the **Save to server** command.

Localizing Time Dimensions

Configure the time dimensions to display correctly for the locale.

You can configure the displayed format of time dimensions based on locale in the **Standard Time Dimensions.cfg** file (located by default at **Server/Profiles/<my profile>/Dataset/Transformation/Time/Standard Time Dimensions.cfg**).

For example, in North America you can express the date May 3rd, 2015 as 5/3/15, or %m/%d/%y. However, in other parts of the world this could be interpreted as %d/%m/%y, or March 5th, 2015 due to an ambiguity in the values. To avoid this situation, an administrator might want to change the displayed format to match the expectations of the users in a locale.

1. Override Default Time Dimensions in Standard Time Dimensions.cfg

To enable this feature, the administrator must override the defaults by either editing the existing time dimensions or by creating new time dimensions with additional parameters.

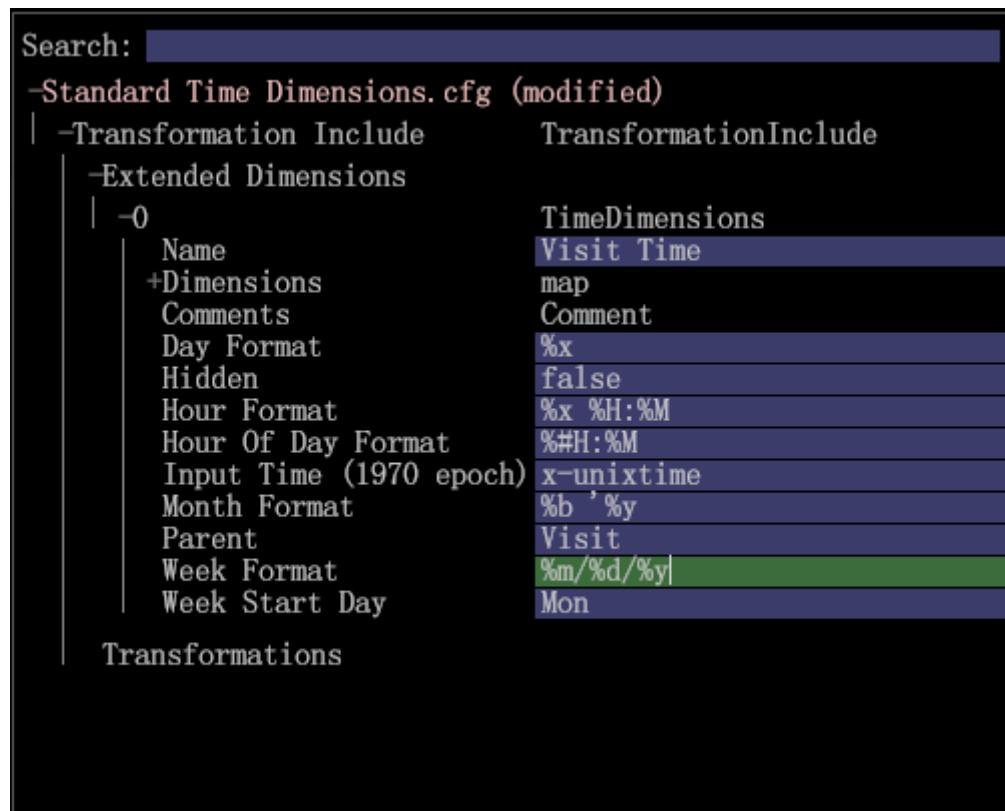
An example of a modified time dimension follows.

The **Format** values for Week, Hour, Day, Month, and Hour of Day are set to the defaults in the example.



Note: If these lines are omitted, Data Workbench's behavior won't change and the dimension will be compiled using the defaults.

```
Transformation Include = TransformationInclude:
Extended Dimensions = vector: 1 items
0 = TimeDimensions:
Comments = Comment: 0 items
Dimensions = map:
Day = string: Day
Day of Week = string: Day of Week
Hour = string: Hour
Hour of Day = string: Hour of Day
Month = string: Month
Week = string: Week
Hidden = bool: false
Input Time (1970 epoch) = string: x-unixtime
Week Format = string: %m/%d/%y
Hour Format = string: %x %H:%M
Day Format = string: %x
Month Format = string: %b '%y
Hour Of Day Format = string: %#H:%M
Name = string: Visit Time
Parent = string: Visit
Week Start Day = string: Mon
Transformations = vector: 0 items
```



2. Configure the `meta.cfg` file

Additionally, it's necessary for the package administrator to add these parameters and their defaults to profile's `meta.cfg` file. This allows editing from the workstation.

Here's an excerpt from a configured **meta.cfg** file.

```
dimensions = vector: 6 items
0 = Template:
...
5 = Template:
  name = string: Time Dimensions
  value = TimeDimensions:
    Name = string:
    Comments = Comment: 0 items
    Hidden = bool: false
    Week Format = string: %d/%m/%y
    Hour Format = string: %x %H:%M
    Day Format = string: %x
    Month Format = string: %b '%y
    Hour Of Day Format = string: %#H:%M
    Input Time (1970 epoch) = string:
    Parent = string:
    Week Start Day = string: Mon
    Dimensions = map:
      Hour of Day = string: Hour of Day
      Day of Week = string: Day of Week
      Hour = string: Hour
      Day = string: Day
      Week = string: Week
      Month = string: Month
```

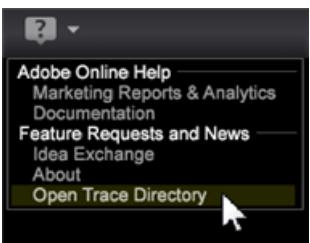
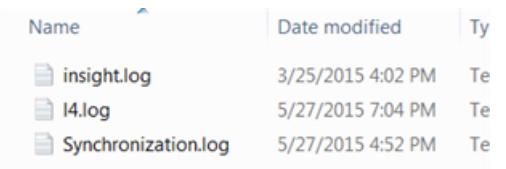
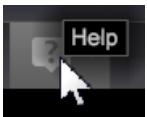
Here is an example of a **meta.cfg** file in the workstation:



The administrator is then able to go into the **File Manager**, open the file(s) where the time dimensions are configured (e.g., **Standard Time Dimensions.cfg**), and edit them using in the workstation.

New User Interface Features

Data Workbench 6.4 adds new workspace icons, tool tips, splash screens, and <F1> shortcut to the help.

New UI Feature	Description
Open Trace Directory in Help Menu 	Access and open the logs files directly by clicking the Help icon on the toolbar . 
Type <F1> to open help	<F1> key opens Data Workbench help anywhere in the workstation.
Tool tips over icons 	Hover over icons in toolbar to see new tool tips.
New icons 	Updated Adobe Analytics icons for executables, landing pages, splash screen, and other user interface elements.



*Note: You can turn off the icons in the toolbar and return to text names. Add the **Toolbar Icons = bool: false** parameter to the [Insight.cfg file](#). False turns off the icons in the workstation user interface and displays menu names in text in the toolbar.*

Device Atlas with In-Memory Cache

The **DeviceAtlas.bundle** file now uses an in-memory cache to greatly improve the performance of lookups

By default, Device Atlas will cache up to 100,000 user-agents and their properties. The LRU cache is entirely self-contained inside the **DeviceAtlas.bundle**, so any version of the server capable of using a bundle file will automatically benefit from the increased performance as soon as the new file is loaded.

Modifying the **DeviceAtlas.cfg** file

The maximum size of the LRU cache can be configured by modifying the **Cached Elements Limit** parameter in the **DeviceAtlas.cfg** file.

Starting with the Data Workbench 6.4 release, you can override the default Cached Elements Limit of "100000" by changing its value and saving the file. The default value has been selected to be sufficient for most needs.

```
component = DeviceAtlasComponent:  
  DeviceAtlas Bundle File = string: Lookups\\DeviceAtlas\\DeviceAtlas.bundle  
  Unsyncronized Bundle Extraction Path = string: Temp\\DeviceAtlas\\  
  Cached Elements Limit = unsigned int: 100000
```

Data Workbench 6.31 Update

Data Workbench 6.31 provides bug fixes and identifies known issues and their workarounds.

Bug Fixes

- Fixed issue where the **Segment Export** output contains random characters in the export file (which has been identified as random buffer data). This occurs for Segment Exports with both legacy and the new segment export formats.
- Fixed issue where **Add Dimension** in a table was displaying only extended dimensions. Now all standard and extended dimensions are displayed.
- Fixed issue in Simplified Chinese version where the client executable, Insight.exe, if the installation directory was named with non-English characters.
- Fixed issues in the Report Server in the Simplified Chinese version where the email subject and the attachment file names were garbled but the actual output reports were valid.

Known Issues

- **Legacy Segment export files output with double quotes** even if the export file doesn't contain quotes in the Output Format field.

Workaround: Add these three lines to the .export file. Setting these values will not trigger an MMP integration (as other configuration fields are required) but will bypass unwanted automatic escapes.

```
MMP Configuration = MMPConfiguration:  
  MMP Segment Name = string: UNESCAPE DUMMY  
  MMP Visitor ID Field = string: [Specify a Dimension from the output of  
    the current export]
```

(The first line has two (2) leading spaces and the next lines four (4). The Dimension from the output of the current export needs to be referenced in the MMP Visitor ID Field.)

Upgrade Instructions

Upgrade instructions for Data Workbench 6.31 are the same as [upgrade instructions for Data Workbench 6.3](#).

New profiles for Data Workbench are located on the **Software and Docs** profile at

```
Profiles - Current\\DataWorkBench\\  
          English Translated\\DataWorkBench_6.31-en-us\\
```

File	softdocs1.insight.omniture.com	Temp
Beta Testing\	✓	
Documentation\	✓	
Internal-Only\	✓	✓
Profiles - Current\		
Adobe SC\	✓	
Base 5.3\	✓	
Base 5.4\	✓	
Base 5.5\	✓	
Base 6.0\	✓	
DataWorkBench\		
Chinese Translated\	✓	
English Translated\		
DataWorkBench_6.1-en-us\	✓	
DataWorkBench_6.11-en-us\	✓	
DataWorkBench_6.20-en-us\	✓	
DataWorkBench_6.21-en-us\	✓	
DataWorkBench_6.30-en-us\	✓	
DataWorkBench_6.31-en-us\	✓	
Adobe SC_6.31_en-us.zip	✓	
Attribution-SC_6.31_en-us.zip	✓	
Base_6.31_en-us.zip	✓	
Geography_6.31_en-us.zip	✓	
IP Geo-Intelligence_6.31_en-us.zip	✓	
Predictive Analytics_6.31_en-us.zip	✓	
Premium_6.31_en-us.zip	✓	
Site_6.31_en-us.zip	✓	
Japanese Translated\		✓

Data Workbench 6.3 Release Notes

Data Workbench 6.3 release notes include new features, upgrade requirements, fixed bugs, and known issues.

To view previous features and fixes based for each past release, see the [release note archives](#).

New Features

Data Workbench 6.3 includes these new features:

Features	Description
Best Fit Attribution	Best Fit Attribution provides a machine-learning approach to determine the varying levels of influence that customer interactions contribute to a successful conversion event, and then assigns the appropriate level of attribution to each event. Best Fit Attribution lets you evaluate touches over a window of time before the successful conversion event occurred, and then employs the Data Workbench algorithm to build an attribution model based on your data with results specific to your marketing campaigns and internal workflow.
Integration with Master Marketing Profile	Share rich customer segments created in Data Workbench to the Adobe Marketing Cloud. Integrating with the Master Marketing profile enables the Adobe Marketing Cloud and other Adobe Analytic capabilities the opportunity to leverage rich audience segments created in Data Workbench. This requires that you have the Marketing Cloud configured and running. Integrating with the Master Marketing Cloud lets you run predictive features such as clustering or propensity scoring, and then push out segments to the larger Adobe Marketing Cloud or other products such as Adobe Target and Adobe Experience Manager .
Segment Export Format Options	Added industry-standard format options for segments for direct integration with other capabilities, such as R , without additional file manipulation. This provides a more seamless workflow and quicker analysis.
Clustering 2.0	Includes a new KMeans++ algorithm (KMeans is currently supported) that uses a faster approach to finding centers for an expedited cluster-generation process.

Features	Description
<i>Trend Lines</i>	Present a very visual and easy-to-interpret depiction of the data.
<i>Regression Analysis graph</i>	Provides the ability to compare the impact of one factor to another directly within the analyst workflow.
<i>Pie Chart update</i>	Updates to the Pie Chart visualization lets you use default colors identified in a legend, or set colors based on the color chart.
<i>Chord Visualization</i>	The Chord Visualization provides another view of the <i>Correlation Matrix</i> .
<i>Query String Grouping</i>	If you have many fields with custom evars, props, and variables, during log processing you can build a name value pair to combine fields in a report.
<i>Latency Analysis</i>	The Latency visualization lets you analyze latent customer behavior within a set number of days before or after an event occurred after a campaign or other event type.
Time dimension	In the Finders panel, you can now right-click on the Dimensions tab and select Dimension Type > Time . A list of time dimensions will display in the search results.
	
Lock feature	The new Lock feature displays an icon in the toolbar when a workspace is locked. You can unlock the workspace by clicking the Add menu and then clicking Temporarily Unlock .
Logical Operators and new Metric features in the Filter Panel	AND/OR logical operators were added to the Filter Panel , allowing you to join or add metrics when filtering data. As you change metrics, the Filter Percentage adjusts and displays accordingly.
Keyboard Shortcuts	New keyboard shortcuts in Data Workbench allow you to navigate across the main worktop and individual workspaces using the arrow keys. In addition, the toolbar in the workspace is now displayed on the worktop window.
Windows 8.1 support	Microsoft Windows 8.1 64-bit is <i>now supported</i> for client installation.

Upgrade Requirements and Recommendations

New profiles for Data Workbench are located on the **Software and Docs** profile at

Profiles - Current\DataWorkBench\
English Translated\DataWorkBench_6.31-en-us\

File	softdocs1.insight.omniture.com	Temp
Beta Testing\	✓	
Documentation\	✓	
Internal-Only\	✓	✓
Profiles - Current\		
Adobe SC\	✓	
Base 5.3\	✓	
Base 5.4\	✓	
Base 5.5\	✓	
Base 6.0\	✓	
DataWorkBench\		
Chinese Translated\	✓	
English Translated\		
DataWorkBench_6.1-en-us\	✓	
DataWorkBench_6.11-en-us\	✓	
DataWorkBench_6.20-en-us\	✓	
DataWorkBench_6.21-en-us\	✓	
DataWorkBench_6.30-en-us\	✓	
DataWorkBench_6.31-en-us\	✓	
Adobe SC_6.31_en-us.zip	✓	
Attribution-SC_6.31_en-us.zip	✓	
Base_6.31_en-us.zip	✓	
Geography_6.31_en-us.zip	✓	
IP Geo-Intelligence_6.31_en-us.zip	✓	
Predictive Analytics_6.31_en-us.zip	✓	
Premium_6.31_en-us.zip	✓	
Site_6.31_en-us.zip	✓	
Japanese Translated\		

Upgrade Server:

 **Note:** If you have customized profiles that take precedence over the default files provided in the Base package, then you will need to update these customized files:

- **Update the Meta.cfg file** (E:\..\Profiles\<your custom profile>\Context\meta.cfg) to set updated password encryption for the File System Unit (FSU server), and to add entries for the Name Value Pair tranformations to take advantage of [Query String groupings](#).

1. Open the meta.cfg file on the FSU.
2. Change the data type for **Proxy Password** from "string" to "EncryptedString" in the *Workstation Configuration* section.

```
Proxy User Name = string:
Proxy Password = EncryptedString: (from Proxy Password = String)
Use Address File = bool: true
```

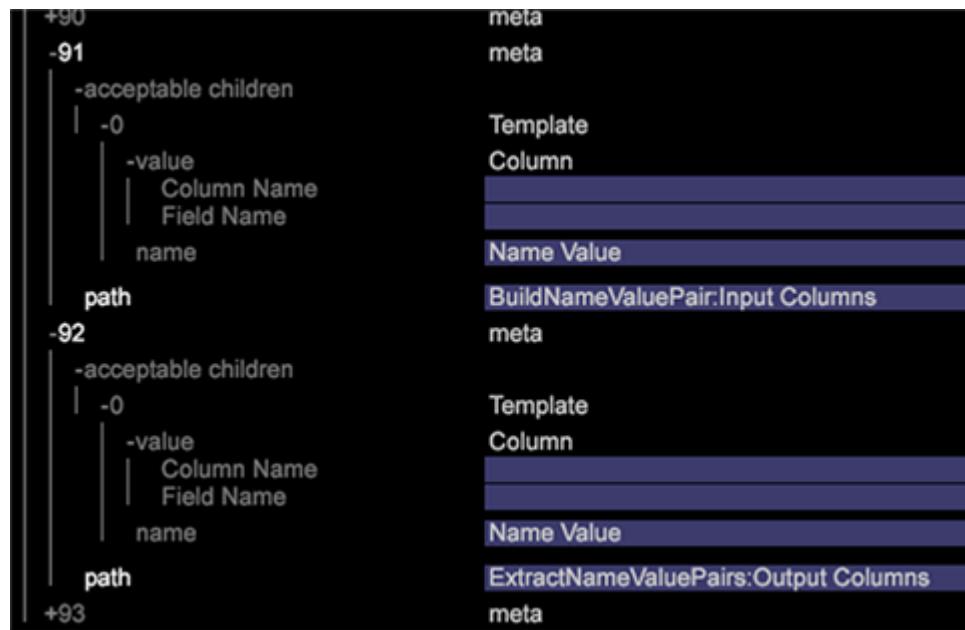
3. Add new entries to enable the new Name Value Pair transformations: *BuildNameValuePair* and *ExtractNameValuePair*.

Open a workspace and right-click **Admin > Profile Manager**.

Under **Context**, click the **meta.cfg** file in the **Base** column and then click **Make Local**. From the **User** table column, right-click and select **Open > in Workstation**.



- In the new window, click **metadata** and add acceptable children templates.



- Open **transformation** and add new templates.

-transformations	
+0	Template
-1	Template
-value	BuildNameValuePair
Name	
Comments	
Condition	
Delimiter	
Input Columns	
Output	
name	Comment
	AndCondition
+2	
+3	
+4	
+5	
+6	
-7	
-value	BuildNameValuePair
Name	Template
Comments	Template
Condition	Template
Delimiter	Template
Input Field	Template
Output Columns	Template
name	ExtractNameValuePair
+8	

- **Update for Fast Merge improvements.** Add parameters or change values to the following configuration files to take advantage of speed improvements in Data Workbench during a transformation.

- **Communications.cfg** (E:\Server\Components\Communications.cfg)

```
18 = SourceListServer:
  URI = string: /SourceListServer/
  Listing Interval = int: 10 (new)
```

- **Disk Files.cfg** (at E:\Server\Components and E:\Server\Components for Processing Servers)

```
Disk Cache Size (MB) = double: 1024 (from double: 256)
Disk Cache Read Limit (MB) = double: 768 (new)
```

- **Log Processing Mode.cfg** (E:\Server\Profiles\<your profile>\Dataset\Log Processing Mode.cfg)

```
(changed)
Batch Bytes = int: 268435456
Cloud Bytes = int: 268435456
Real Time FIFO Bytes = int: 268435456

(new)
Cache Bytes = int: 32000000
Fast Input Decision Ratio = double: 200
Fast Input FIFO Bytes = int: 268435456
FIFO Hash Mask = int: 16383
Fast Merge Buffer Bytes = int: 536870912
Slow Merge Buffer Bytes = int: 268435456
Fast Merge Fan In = int: 64
Key Cache Size Logarithm = int: 21
```

```
Max Seeks = int: 512
Output Old Buffer Bytes = int: 536870912
Overflow FIFO Bytes = int: 67108864
Paused = bool: false
```



Note:

- To take advantage of the Fast Merge improvements, make sure you have at least 8 GBs of RAM per DPU.
- The Save Interval, the duration between dataset saves, might need to be reduced if the new Log Processing Mode parameters are applied. Because the Transformation will complete faster, the dataset state file will contain more data between Save Intervals compared to prior versions.

It is recommended to reduce the Save Interval setting to 1800 seconds (30 minutes)—the default Save Interval is 3600 seconds (1 hour). (If this line needs to be added to the Log Processing Mode .cfg, note that there are two (2) leading spaces).

```
Save Interval (sec) = int: 1800
```

- It is recommended that the new Log Processing Mode parameters not be applied to a dataset that is configured with a **CrossRows** using the **All** operation. With these settings, the memory usage for this operation can become too great for the environment.

- **Adobe Target with DWB integration update.** A new export file, ExportIntegration.exe, replaces the existing TnTSend.exe file on the Insight Server (E:\Server\Scripts\TnTSend.exe). This new export file supports both **Adobe Target** integration and coordination with the new Master Marketing Profile (MMP) and **Adobe Audience Manager**.

You will need to update the following commands for Adobe Target exports.

```
Command = string: TnTSend.exe
```

to

```
Command = string: ExportIntegration.exe
```



Note: This will only affect exports created prior to version 6.3.

You can also try the following to employ the old export process:

- Create a new Test And Target Export in the workstation.
- Modify the old Test and Target export found in Server/Profiles/<your profile>/Export.

- **Update the Adobe SC profile.** Changes to the Exclude Hit.cfg file require a field to be declared in the associated Decoding Instructions.cfg file.



Note: If your Adobe SC profile includes a customized Decoding Instructions.cfg file, you will need to include a DelimitedDecoder parameter to your customized file.

```
0 = DelimitedDecoder:
  Delimiter = string: \t
  Fields = vector: x items
  ...
  5 = string:
Changed to:
  5 = string: x-hit_source
```

Adding the DelimitedDecoder field allows you to take advantage of feature updates and to avoid possible Log Processing problems resulting from these updates.

Upgrade Client:

-
- **Update your client from the server.**

Once your server has been updated, your client can update automatically if the `Insight.cfg` file is configured properly:

1. Edit the `Insight.cfg` file.

```
Update Software = bool: true
```

Then **Save**.

2. Exit and launch the client.
3. Connect to the profile.

The client will automatically upgrade to Data Workbench 6.3.

4. Exit out of the client.
5. Edit `Insight.cfg`

- `Change Proxy Password = string:`

```
to Proxy Password = EncryptedString:
```

Remove the value of the previous Proxy Address and Proxy Password.

• **Save**.

6. Launch the client.
7. Edit `Insight.cfg`.
 - Enter Proxy Password for all the servers and Save.
 - Enter the Proxy Address for all the servers and Save.



Important: *The Proxy Address and Proxy Password must be entered and saved from within the client.*

8. Connect to the profile.



Note:

- *Follow the exact upgrade sequence in order to avoid an account lockout. If the account is locked, please perform all the required changes in the exact sequence listed, save your work, and exit out of the client. Wait for the lockout to release (about 45 minutes), then launch the client again.*
- *The password modification should be performed in the client only due to the fact that the passwords are saved in Windows Credential Vault.*

• Recommendation: New Windows Aero Themes.

Upgrade the look of your client application using Windows Aero Themes.

• Recommendation: Fonts for Chinese and Japanese versions:

Chinese:

- Arial
- SimSun

Japanese:

- MS Gothic
- Meiryo
- MS Mincho
- Arial
- SimSun

 **Note:** *SimSun can be used for Chinese and Japanese. If attempting to write in half-byte characters in Japanese, you also need to include MS Mincho. To enable these fonts in `Insight.cfg`, you can add these parameters.*

```
0 = string: Arial
1 = string: SimSun
2 = string: MS Mincho
```

These fonts should be listed in the workstation configuration file: `Insight.cfg`.

Upgrade to Adobe Analytics Premium

To run **Best Fit Attribution** in Data Workbench, you need to receive new certificates from Adobe ClientCare for your Client, Server, and Report Server (.pem files) to support Adobe Analytics Premium. Each of the new certificates will have this parameter:

```
Product = Premium
```

The Premium Package is available for download on **Software and Docs** under the **Getting Started** tab on the **Profiles and Lookup** files workspace. Navigate to `Profiles - Current\DataWorkBench\<language>\DataWorkBench_6.30-en-us\Premium_6.30_en-us.zip`.

Once the **Premium** profile is loaded on your Server, you will need to add a *Premium* parameter to your custom `Profile.cfg` file. This allows your custom profile to include the menus, visualizations, and workspaces as part of Adobe Analytics Premium.

Fixed Bugs

- Fixed issue where the **Density Map** visualization was missing largest elements.
- Fixed issue in **Density Map** where area of elements was not portraying the proportion of the metric value.
- Fixed issue where dragging metric from **Finders** panel to metric legend outside of the metric column would delete the legend from the workspace.
- Fixed issue where **Print Workspace** using **Sidebar** and **Both** options will not include the Copyright info in the printed page.

Known Issues

- Users of **AMD Radeon™ graphics cards** should update to the latest graphics drivers. Some early versions of the driver claim they support OpenGL 3.2 but are inconsistent.
- Output generated by **Segment Export** configuration without a header declaration can result in a bogus header appearing at the beginning of the file that conflicts with the first set of rows.
- **Add Dimensions** is showing only the *Extended Dimensions*. The workaround is to use the **Finders** tool to drag dimensions to tables.
- When 3D Scatter Plot Visualization includes callouts, the zoom might display plots outside the border of the visualization. To work around this issue, zoom the 3D Scatter Plot first and then add callouts to your visualization.
- Using Workstation in Remote Desktop session will crash when renaming workspaces.
-
- **Legacy Segment export files output with double quotes** even if the export file doesn't contain quotes in the Output Format field.

Workaround: Add these three lines to the .export file. Setting these values will not trigger an MMP integration (as other configuration fields are required) but will bypass unwanted automatic escapes.

```
MMP Configuration = MMPConfiguration:  
MMP Segment Name = string: UNESCAPE DUMMY  
MMP Visitor ID Field = string: [Specify a Dimension from the output of  
the current export]
```

(The first line has two (2) leading spaces and the next lines four (4). The Dimension from the output of the current export needs to be referenced in the MMP Visitor ID Field.)

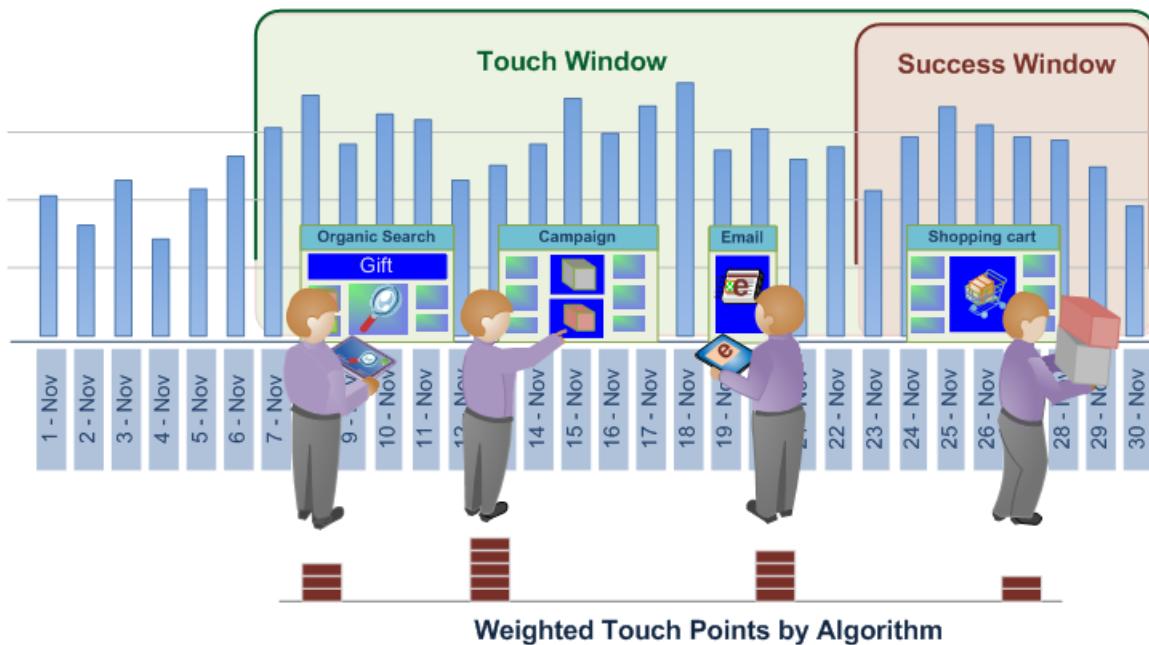
Data Workbench 6.3 features

Data Workbench 6.3 includes the following features.

Best Fit Attribution

Best Fit Attribution is a machine-learning approach to assigning attribution values across the different channels of a successful conversion event. Data Workbench automatically evaluates contributions to success across a window of time per channel, and then builds an attribution model based on your customers' actual interaction patterns.

Best Fit Attribution lets you compare the interactions, or touches, that contributed to a successful sale, email sign-up, or other performance indicators. The attribution analysis automatically assigns weight to the most important touches and provides an attribution model per channel based on your data and responsive to your market and internal protocols.



For example, if a customer visits your site through an organic search, then engages with a campaign, and then signs up for an email, [rules-based Attribution](#) would identify the first touch or last touch, or evenly distribute success attribution across all touch points using preset attribution models. Where rules-based attribution is defined by the user, the Best Fit attributes sets values through an algorithm by calculating the probability of a conversion as a function of the observed touch points.

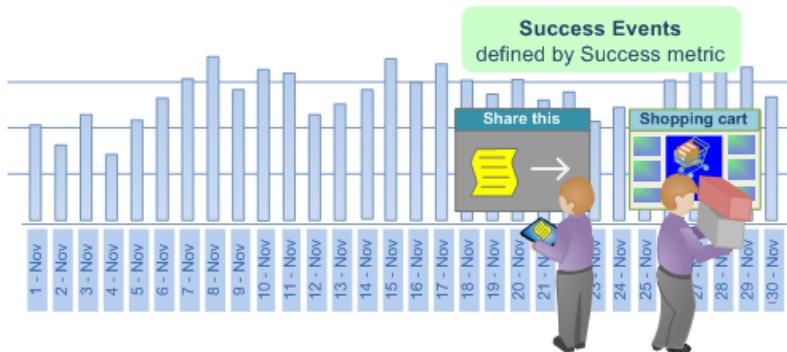
Note: To run **Best Fit Attribution** in Data Workbench, you need to update your server certificate (.pem file) to support Adobe Analytics Premium. You also need to add **Premium** to your custom **Profile.cfg** for the client and receive new certificates from Adobe ClientCare for Server and Report Server. See [upgrade instructions](#) for Data Workbench 6.3.

Basic Setup

See [Build a Best Fit Attribution](#) for step-by-step instructions.

Set the Success metric

Define a metric representing a success event.



The Success Metric is often *Orders*, although you can leverage Data Workbench to define a very complicated success metric in conjunction with the Success Window.

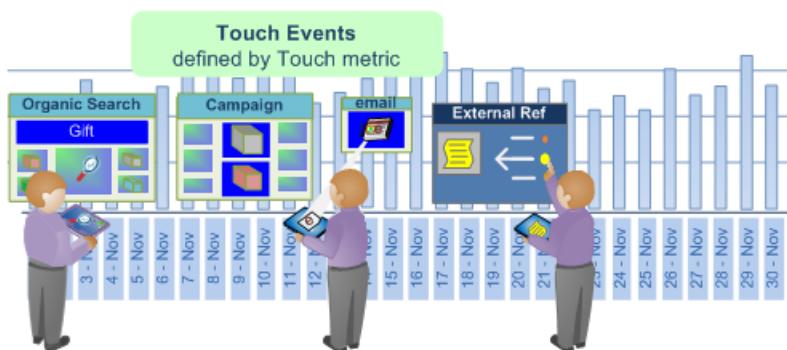
Set the Touch metric (optional)

Identify interactions to track that led to a successful conversion, then set the Touch metric over which attribution will be calculated.

Note: Setting a Touch metric is only required if you are using it to derive Channel Metrics from drag and drop Dimension elements instead of using existing Channel metrics.

If you do not have a metric defined for campaigns or channels, but do have dimensions representing channels, the Best Fit Attribution can build them for you automatically based on the Touch metric.

For example, with the Touch Metric set as *Hits*, and given a dimension called *Media Type* with elements that include *Email*, *Press Release*, *Print Ad*, and *Social Media*, the visualization will generate Channel metrics of the form *Hits* where *Media Type* = *Email* when you drag and drop the element(s) onto the visualization.

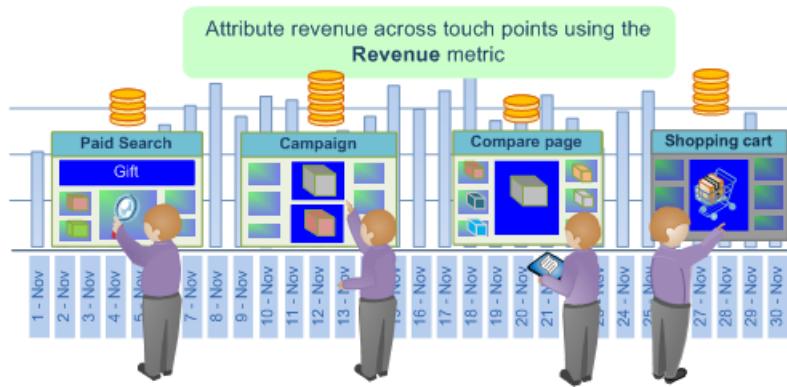


The Touch metric then determines the allocation of attribution scores to identify marketing interactions considered influential for success, allowing you to qualify marketing touches for the population identified in the Success window. You can set metric such as *Page Views* or *Hits*, or use customized touch metrics specific to your needs.

In many cases, the Touch window should include the Success window to evaluate a long lead time in the sales cycle.

Set the Revenue metric.

You can opt to identify revenue across touch points by setting an appropriate revenue metric. If specified, the model will display the distribution of revenue over the input channels.



You can set a revenue metric with currency data types to allocate success across all top touch points defined and analyzed. This metric breaks down the final sales revenue and allocates based on the weighting allocated by the algorithm.

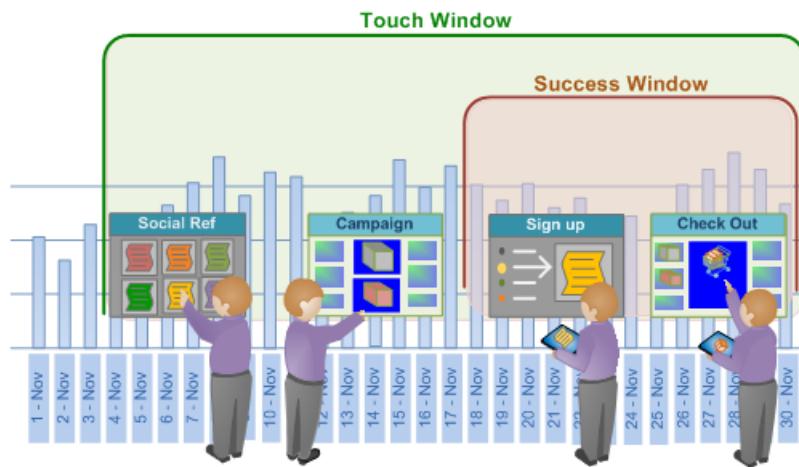
Set the Success and Touch Windows.

The Success window defines the population to examine and the period for successful events, allowing you to indicate the windows of time and breadth of population to consider for the analysis through a workspace selection. The **Success** window defines the period and population to examine for success events. The **Touch** window specifies the historical time period to examine for channel interactions leading up to the success events.



Note: *Setting a Touch Metric is only required if you are trying to build Success metrics automatically by dragging dimension elements onto the visualization.*

You can set a day, month, year, or any available time frame to constrain your evaluation of success and touch events across the sales cycle or for specific audiences entering your site. Creating windows to limit attribution allows you to focus your analysis on the relevant periods of time for your specific needs.



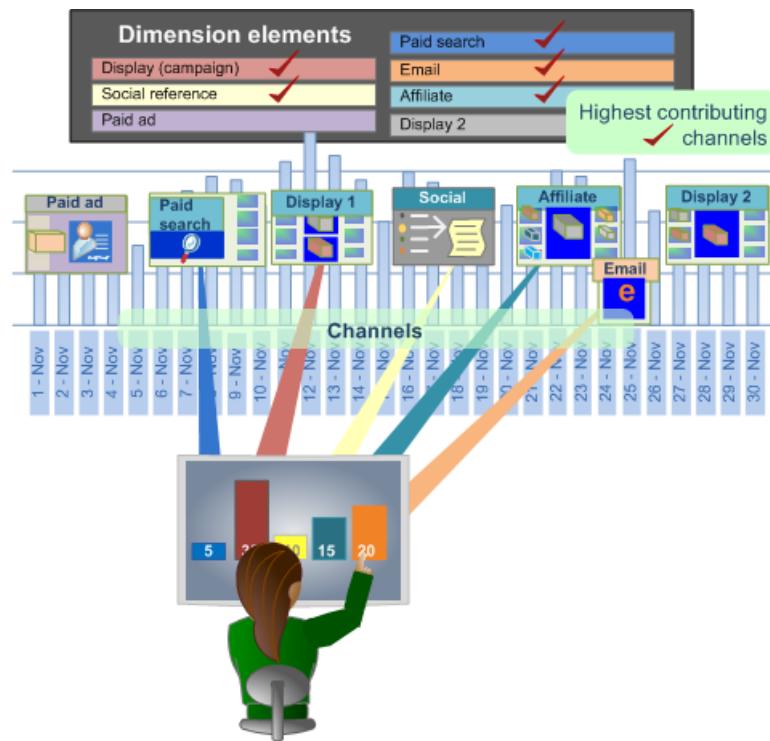
In many cases, you will want the Touch window to include the Success window to let you extend your analysis over a long lead time based on your sales window. Or you can track and analyze touches separate from the success event.

Select the Channels.

When entering channels you have two choices.

Add the Touch Metric and add Dimension Elements to the Channels

In many cases, you will want to break down the top touch points by dimension elements to define specific channels. Based on the element values, Best Fit Attribution will automatically select the top performers and rank them according to percentage and display them in a chart visualization.



An attribution model will be built by drawing on the visitors who interacted during your Success window and examining the channel Touches during the Touch window that did or did not result in a successful event.

Breaking Down by Channels

When entering channels you have two options:

- Add a **Touch Metric** and then add **Dimension Elements** for the Channels.

or

- Create metrics that filter for the channel elements that you want to evaluate.

Option 1: Add a Touch Metric and add Dimension Elements for Channels.

This is the easier approach. Best Fit Attribution creates the metrics automatically to evaluate for attribution. In the example below the Touch Metric is **Hits** and Channels are: **Display Campaigns**, **Email Campaigns**, and **SEM Campaigns**.

Using this method, Best Fit Attribution creates a metric in the background for evaluating the attribution across the channels (but you never see the auto-generated metric and they are not saved). In the example below, three metrics are created where Hits is filtered for each of the three channels (e.g, *Display Campaigns*, *Email Campaigns*, and *SEM Campaigns*). This is the easiest because you let the Best Fit Attribution create the metrics for you.

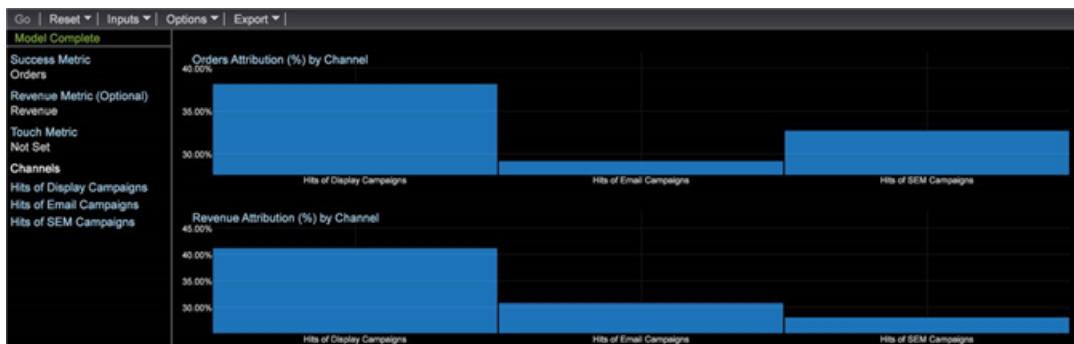


Option 2: Create a Metric.

In the second option, you create and save the metrics for the channels that you want to evaluate by filtering a specific channel. An example of a such a metric is shown below.

Editing	Hits of SEM Campaigns.metric
Name	Hits of SEM Campaigns
Formula	sum(One, Hit)[MarketingChannel = "SEM Campaigns"]
Preview	6,614,522

Then, instead of entering a Touch Metric and Dimension Elements for the Channels you can click on the menu bar in the visualization and select **Inputs > Add Channel** and then select the metrics that you created.



See the example of the second method below. You can see that the results of both options are identical.

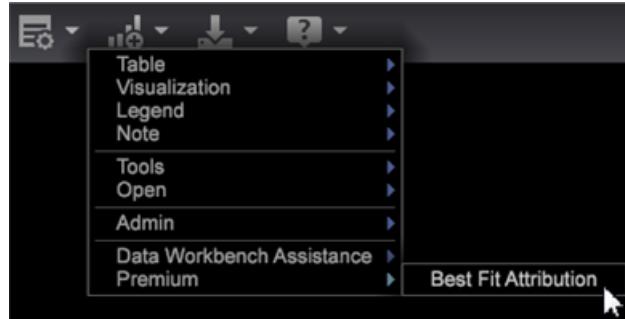
Build a Best Fit Attribution Model

Open Best Fit Attribution from the **Premium** menu and follow these steps to build a Best Fit Attribution model.

See an overview of [Best Fit Attribution](#).

1. Open Best Fit Attribution.

Open a workspace and click **Premium > Best Fit Attribution**.



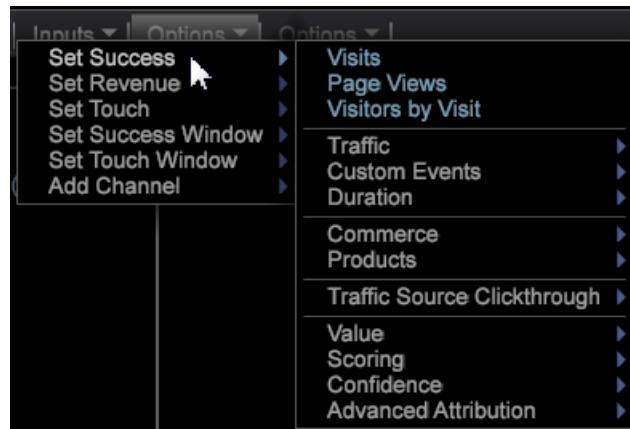
Note: Best Fit Attribution is an Adobe Analytics Premium feature that requires you to enable Premium in your Profile. It requires you to update your certificate and add the Premium profile to your profile.cfg file. See [upgrade instructions](#) for DWB 6.3.

2. Set the **Success** metric.



Note: You can either drag a metric from a **Finder** table to the left pane of the Attribution visualization, or select from the **Inputs** menu.

Click **Inputs > Set Success**. The metric menu will open.



Select a metric that identifies a successful conversion.

3. (optional) Set the **Revenue** metric.

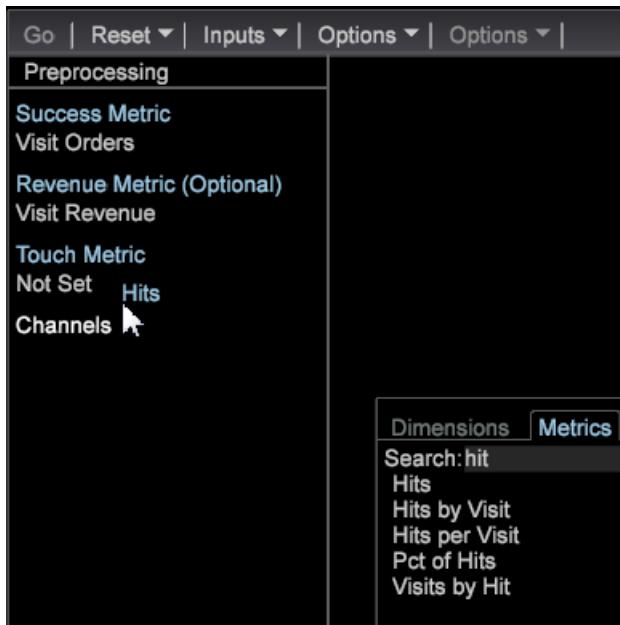
Set a metric to evaluate revenue across the conversion process.

4. Set the **Touch** metric.



Note: Setting a Touch Metric is only required if you are trying to build Success metrics automatically by dragging dimension elements onto the visualization.

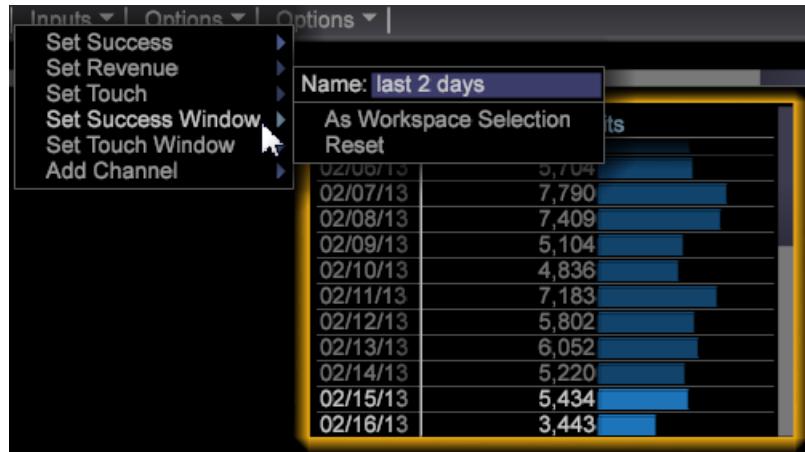
Click the **Inputs** menu and select **Set Touch**, or drag a metric from the Finder.



This will be used to derive channel metrics when dimension elements are used as inputs.

5. Set a **Success** window.

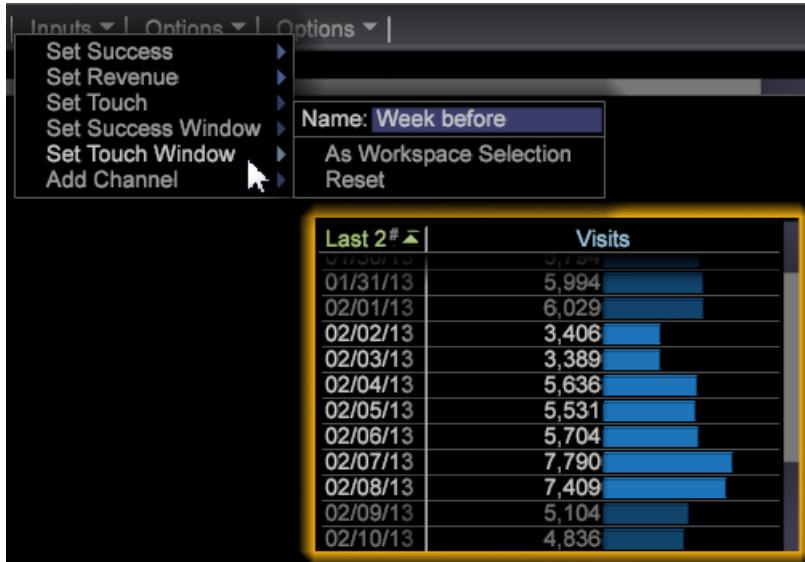
Click **Inputs** > **Success Window**. Select a date range from a table and then name the Success window. Click **Workspace Selection** and the selected dates will be assigned as the range of time for the Success metric.



Note: Since the Success window is a workstation selection, you can include any dimension(s) to your Success window.

6. Set a Touch Window.

Click **Inputs** > **Touch Window**. Select a date range from a table and then name the Touch window. Click **Workspace Selection** and the selected dates will be assigned as the range of time for the Success metric.



By default, the **Touch** window will be set to the same time period as the **Success** window.

7. (optional) Set a Training Filter.

You can also specify a **Training Filter** in the workspace to filter visitor data.



Note: In setting both the Success and Touch windows, you can apply the Training filter to the current workspace selections to further limit your data.



 **Note:** The training set is always drawn from visitors who satisfy the Success window. By filtering using the Filter Editor, you can create a subset of visitors reported in the Success window.

8. Specify channel metrics that represent touches.

Either drag metrics to the visualization, or choose them from the **Inputs > Add Channel** menu. If you do not already have metrics defined for campaigns or channels, but do have dimensions representing channels, the visualization can build them for you automatically with the specification of a Touch metric.

For example, with the Touch metric set to **Hits**, and given a dimension called **Media Type** with elements that include things like **Email**, **Press Release**, **Print Ad**, and **Social Media**, the visualization will generate Channel metrics of the form **Hits where Media Type = Email** when you drag and drop the element(s) onto the visualization.

9. Press **Go**.

The Best Fit Analysis process will run, and a chart will display attributions per channel based on the selected inputs.



Note: Right-click **Model Complete** on the completed analysis to see statistics for the attribution model.



When complete, a graph will display an attribution model calculated per channel, and a distribution of the *Revenue* metric (if set). The model can be saved internally or exported to other systems.

 **Note:** *Streaming, Online and Offline* modes produce different effects when building an attribution model based on the latency of the data being evaluated. In **Streaming** mode, the detail **Model Complete** message will display. In **Online** and **Offline** modes, the detail **Local Model Complete** will display.

Options menu

The **Options** menu provides advanced features to set up and display Best Fit Attribution analysis.

Options menu	Description
Set Training Filter	<p>The Training Filter is used with the Success Window to filter the population when building the attribution model. This will provide a subset of data that includes only the visitors that you want to analyze.</p> <p> <i>Note:</i> Experienced users can also leverage the flexibility of filters to focus beyond the time line of the Success and Touch Windows. For example, in addition to selecting a time range, you can select a set of Referring Domains to only examine the attribution for users from those domains.</p>
Show Complex Filter Description	Displays the filter code for the Training Filter, Success Window, and Touch Window.
Save Model	Saves the current attribution model for future use.
Load Model	Opens a previously saved attribution model.
Presentation View	Hides the top menu bar for presentation.

Options > Advanced includes features to set the training set size and specify the approach to take in the case of a class imbalance.

Advanced > Training Set Size	<p>Sets the training set size.</p> <p> <i>Note:</i> The default training size is Large for 250,000 visitors.</p> <ul style="list-style-type: none"> • Tiny = 50,000 • Small = 75,000 • Normal = 100,000 • Large = 250,000 • Huge = 500,000
Advanced > Class Balance	Identifies and defines the number of input records to generate for a class imbalance issue based on dataset size.

Reset and Remove options	Description
Reset Model	From the Reset menu, select Reset Model to clear the visualization but keep input metrics.
Reset All	From the Reset menu, select Reset All to clear the visualization and the input metrics.
Remove	Right-click on any input and select Remove to clear the metric from the selected input.
Remove All	Right-click on <i>Channels</i> and select Remove All to clear all input metrics.

Chord Visualization

The Chord visualization allows you to show both the proportion and correlation between metrics, displaying larger chords as an indication of a stronger correlation.

The Chord visualization lets you see identify correlations between metrics, allowing you to add and easily evaluate possible correlations. It also provides another view into any previously built [Correlation Matrix](#). Using the Chord visualization, you cannot identify a positive or negative correlation between the metrics—only that a correlation exists. In certain cases, determining a direct or inverse relationship can be identified by applying counter metrics.

1. **Open the Chord visualization.**

In the workspace, right-click **Visualization** > **Predictive Analytics** > **Chord**.

2. **Select a Dimension from the menu.**

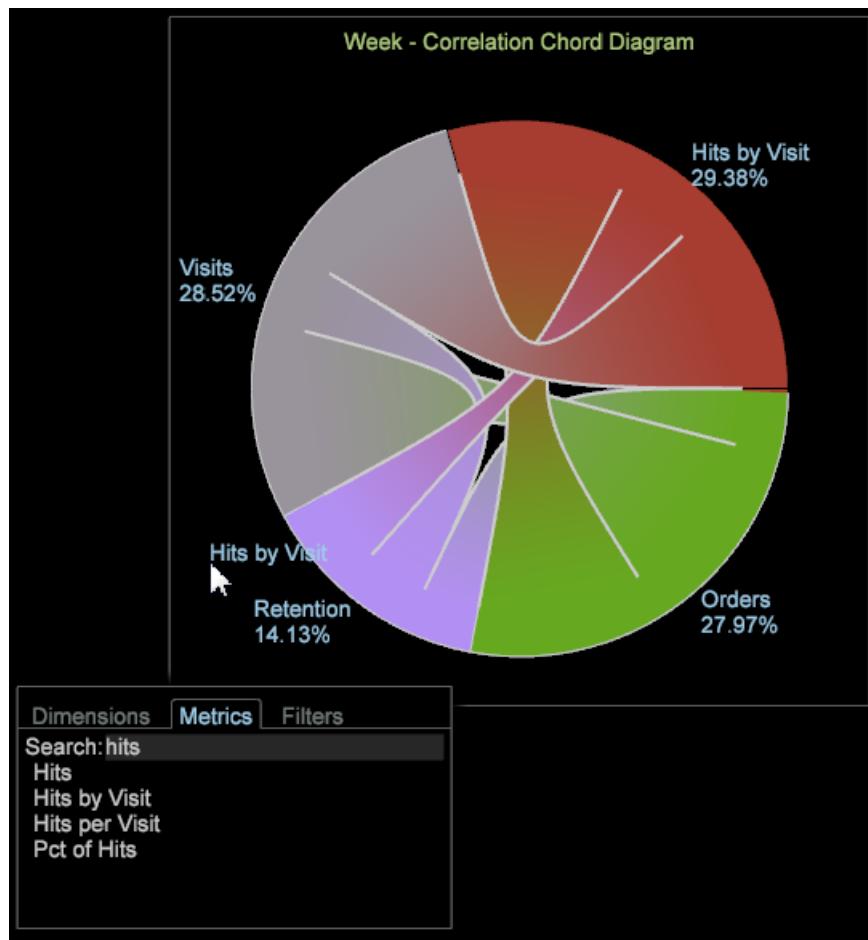
A blank visualization will open allowing you to select a dimension. The dimension name will appear at the top of the blank chord visualization.



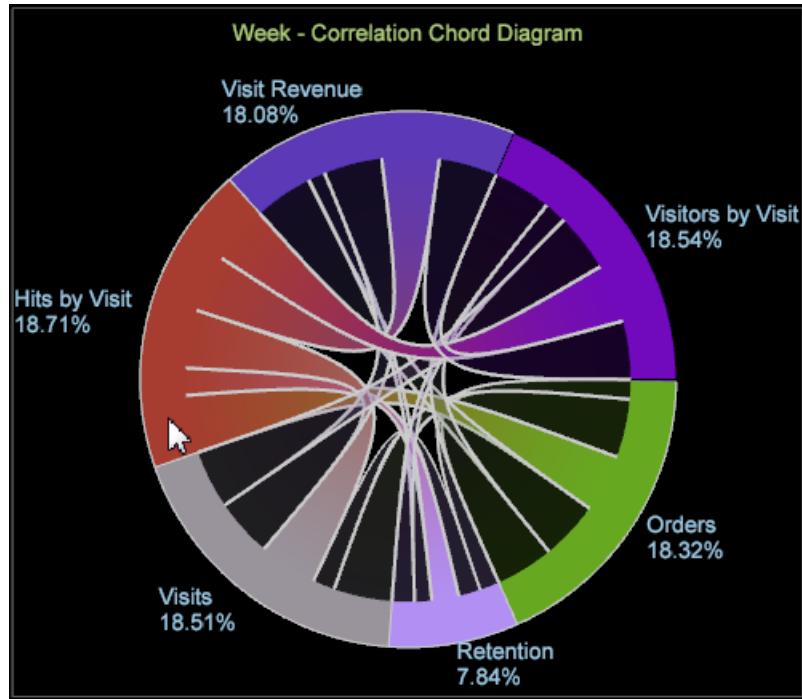
***Note:** If you already have a Correlation Matrix open in the workspace, you can also render it as a Chord visualization.*

3. **Choose metrics to correlate.**

Drag metrics from the **Finder** by clicking **Ctrl-Alt** to drag metrics from the table to the chart. After two or more metrics are selected, the chart will automatically refresh and begin displaying correlation data. Continue adding metrics as needed to correlate data points.

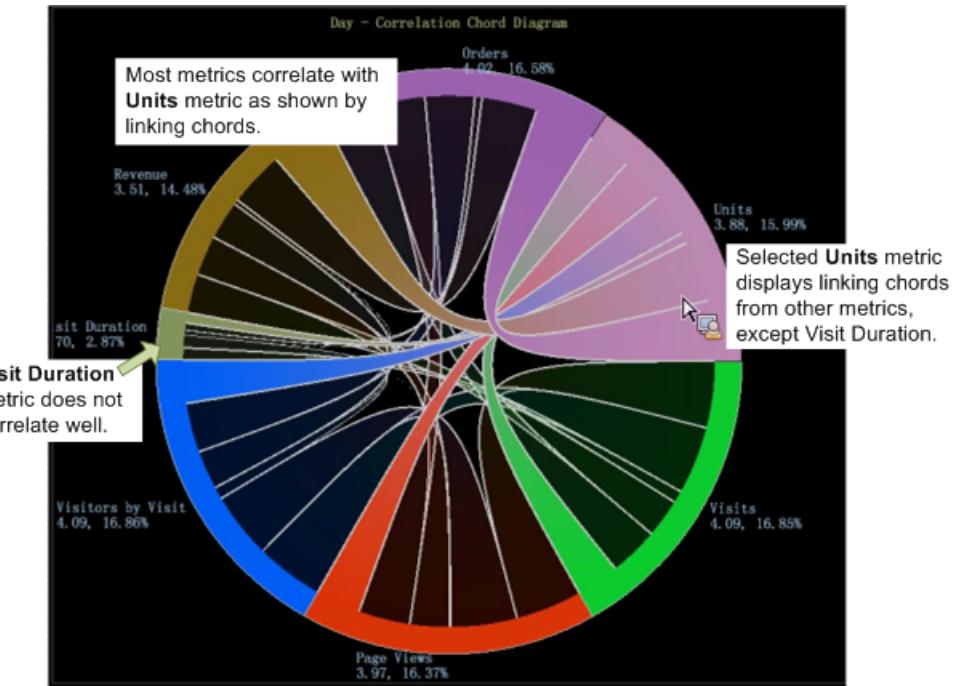


The Chord visualization displays the proportion of the whole represented by the area of each segment. Continue to add metrics as need to identify and investigate significant relationships.

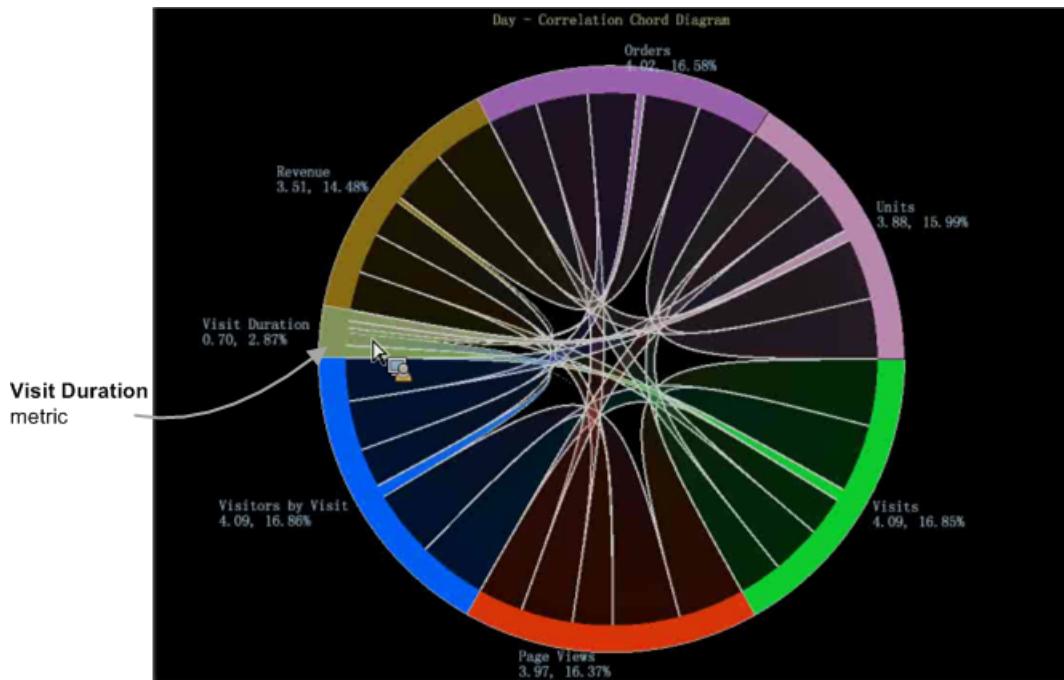


4. View the Chord visualization.

Hover over each metric in the visualization to see relationships. In the example, you can see a correlation between Units and most other metrics (except for the **Visit Duration** metric).

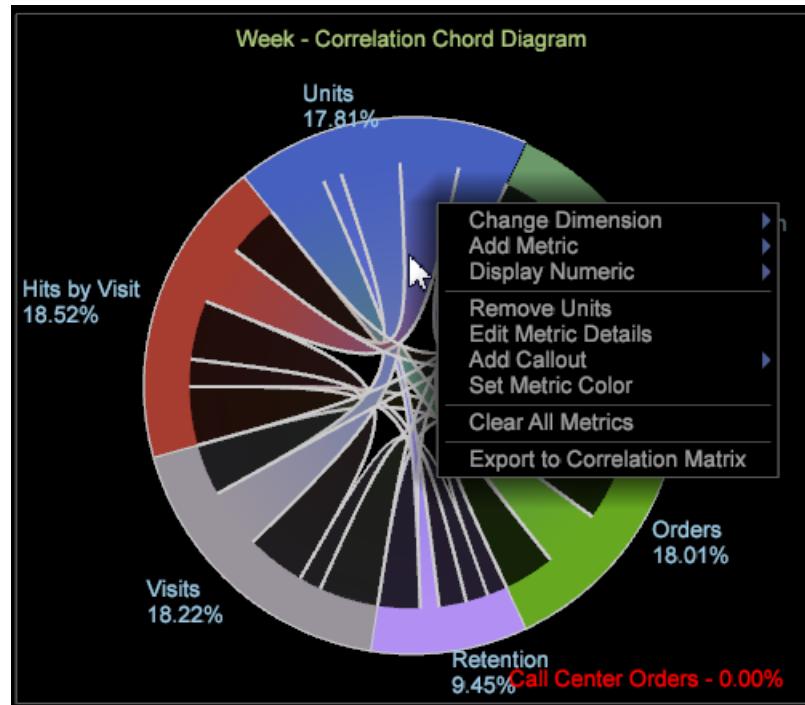


When you hover over the **Visit Duration** metric on the Chord visualization, you can see there is very little or at most weak correlation between all other metrics.



5. Change Settings.

Right-click the Chord visualization to open a menu to change the dimension, display the dimensions as absolute numbers or as percentages, remove the selected metric or all metrics, edit colors and details, and export values to a Correlation Matrix.



Regression Analysis Graph

The Bar Graph in Data Workbench now includes a regression comparison for multiple metrics across multiple graphs.

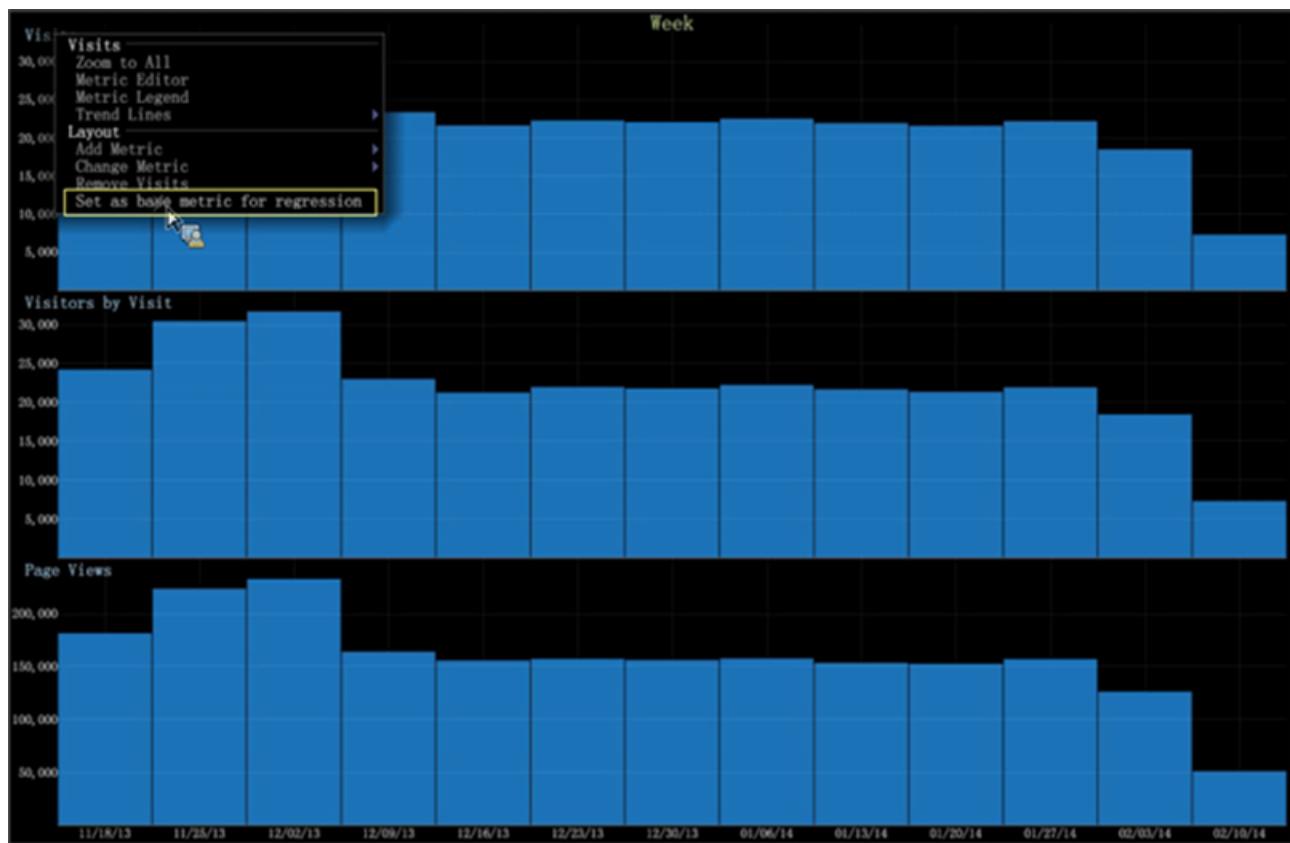
Bar graphs in Data Workbench let you regress metrics in one graph to metrics in another graph. If you have multiple graphs, you can compare a metric (as the independent variable) to a graph evaluating other metrics (as dependent variables). This lets you determine the strength of the relationship between one dependent variable (the metric established first) and a series of other changing metrics (regressions with the established dependent metric).

The regression analysis on a graph visualization allows analysts to perform "what-if" scenarios. For example, if visits increase to this level, what impact will this increase have on revenue?

Setting up Regression Analysis

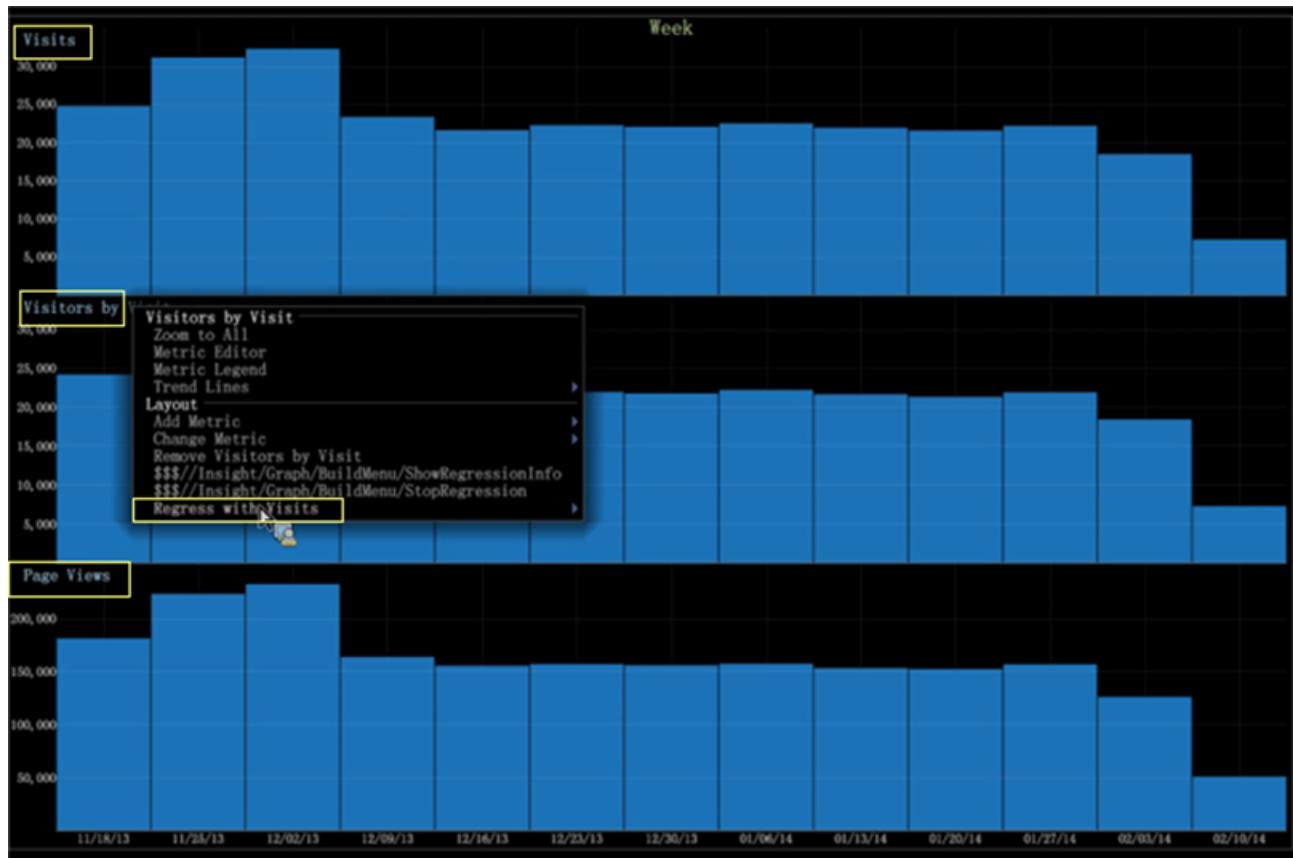
1. Select graph as a dependent metric for a regression comparison.

Right-click on the graph and select **Set as base metric for regression**.



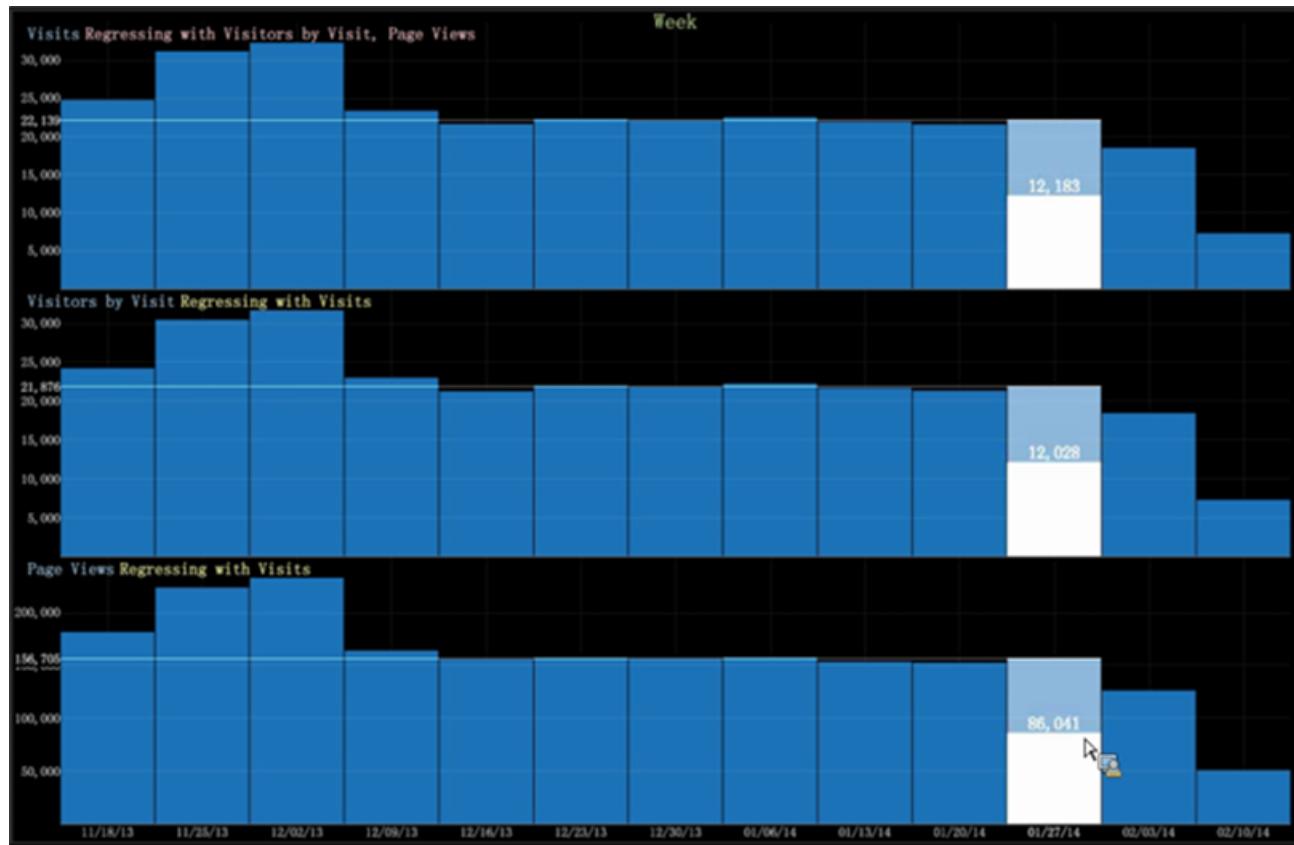
2. Set other metric graphs as independent variables.

Right-click metric and select **Regress with <base metric name>** for other metrics.

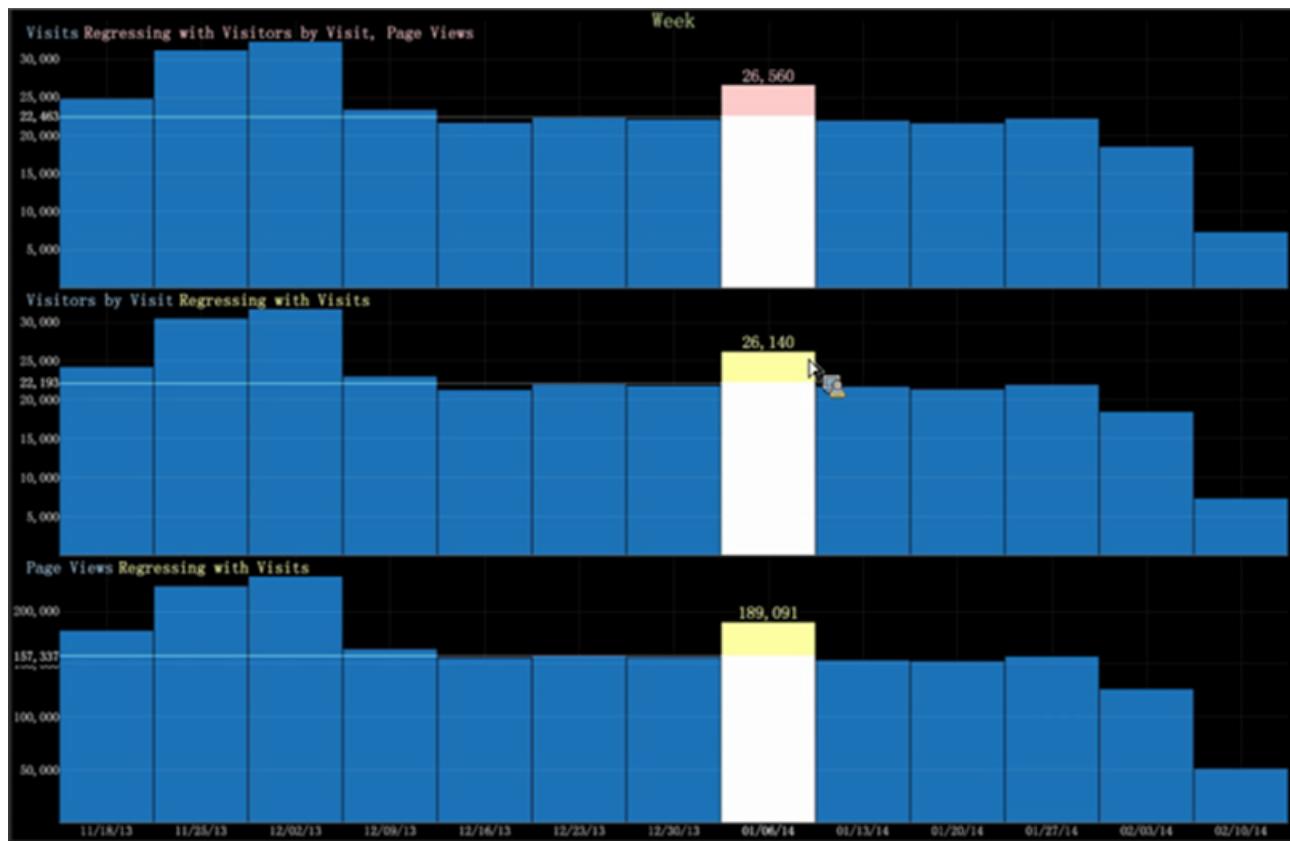


3. View regression by right-clicking on the graph to move the bar up and down.

If you right-click on the graph for a specific value, you can then see the regression ratios for each metric based for upward or downward values.



For example, if my Page Views decrease to 86,041, then the other metrics will have these values: Visits at 12,183 and Visitors by Visit at 12,028.



If Visitors by Visits values increase to 26,141, then the other metrics will be Visits at 26,560 and Page Views will be at 189,091.

Master Marketing Profile Export

Data Workbench lets you export files to integrate with the Master Marketing Profile as part of an integrated Adobe Marketing Cloud.

The Master Marketing Profile (MMP) is part of the [Visitor ID service](#), a core service of the [Adobe Marketing Cloud](#). The MMP allows audiences to be shared across the Marketing Cloud using a unique visitor ID (MCID) that is assigned to every visitor and then used by [Audience Manager](#). The ExportIntegration.exe application (E:\Server\Scripts) is employed to generate both MMP and Adobe Target exports.

Configuring the FSU Server to use the Master Marketing Profile

1. Access your FSU server.
2. Open the MMPExport.cfg file. (Server/Admin/Export/MMPExport.cfg).
3. Enter values in the all fields as required. For example:

```
Sample MMPExport.cfg
MMP Export Configuration = MMPExportConfiguration:
s3 Bucket = string: aws_bucket_for_mmp
s3 Object Directory = string: test/files/
s3 Region = string: us-east-1
s3 Access Key = string: ZZKI62005YBA
s3 Secret Key = string: ioqwa3OpNE5
data Provider Name = string: 895
client ID = string: mcprofile2-test
client Secret = string: saea1287617212987q
```

```
username = string: mmptest
password = string: pass
```

Definition of parameters. (The s3 information required for MMP (s3) can be obtained from Audience Manager team.)



Note: MMP/AAM integration relies on Amazon's s3 bucket for data transfer.

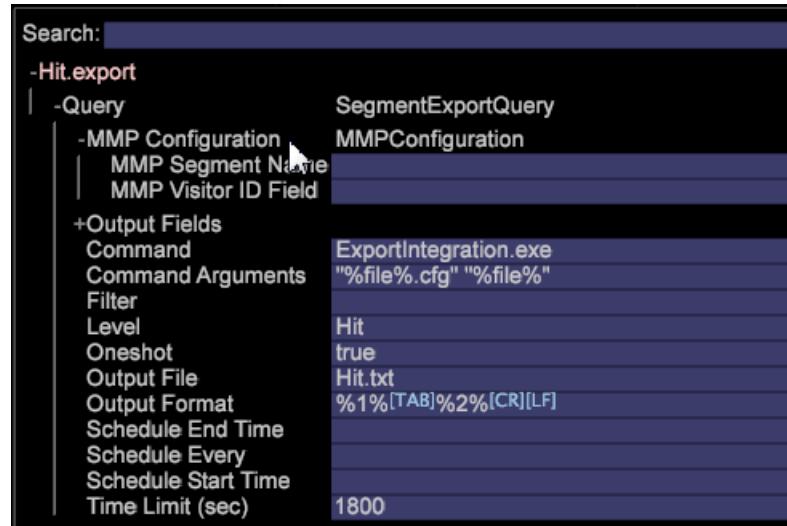
Parameter	Definition
<i>s3 Bucket</i>	The AWS S3 bucket where the export is transferred to.
<i>s3 Object Directory</i>	A path to save s3 files. This supports sub-directories. ⚠ Important: Space and multibyte characters are not allowed in the path and will create errors in the export. (The hyphen is allowed).
<i>s3 Region</i>	The AWS s3 Region where the export is sent to. Ex. us-east-1
<i>s3 Access Key</i>	AWS s3 Access Key
<i>s3 Secret Key</i>	AWS s3 Secret Key
<i>data Provider Name</i>	This will be the folder name that is used for storing segments and traits in AAM respectively. This should be unique per customer.
<i>client ID</i>	This is a unique client ID provided to a customer when he/she is provisioned for MMP.
<i>client Secret</i>	This is a unique client secret provided to a customer when he/she is provisioned for MMP.
<i>username</i>	MMP username
<i>password</i>	MMP password

Generating MMP export from the client

1. From the client, open a workspace and right-click **Tools > Detail Table**.
2. Add **Level**.
3. Right-click the header and select **Add Attributes**.
4. Right-click the header and select **New Master Marketing Profile Export**.



5. Expand **Query**.



6. Expand **MMP Configuration**.

7. (required) Enter the **MMP Segment Name** and **MMP Visitor ID Field**. These parameters cannot be left empty.
8. The **MMP Segment Name** should match the Segment ID defined in the MMP.
9. The **MMP Visitor ID** is the attribute column defined in step 4 that corresponds to the **Visitor ID**.
10. Once these fields are entered, you can save the export by right-clicking the header for the export and choose **Save as "User\.export"**.
11. Open **Admin > Profile Manager** and save the export to the profile.

If all data is entered correctly, this will generate an export file in the FSU (Server/Exports) and it will also transfer the export to the AWS using the information in `MMPExport.cfg`. The log for this is provided in `Server/Trace/.eg., MMPE-102014-133651- [Segment Export Name] .log`

```

Query = SegmentExportQuery:
Command = string: ExportIntegration.exe
Command Arguments = string: \"%file%.cfg\" \"%file%\""
Filter = string:
Level = string: Page View
MMP Configuration = MMPConfiguration:
MMP Segment Name = string: 12345
MMP Visitor ID Field = string: Tracking ID
Oneshot = bool: true
Output Fields = vector: 3 items
0 = ColumnDefinition:
Column Name = string:
Field Name = string: Tracking ID
1 = ColumnDefinition:
Column Name = string:
Field Name = string: PID
2 = ColumnDefinition:
Column Name = string:
Field Name = string: SID
Output File = string: MMPTTest.txt
Output Format = string: %1%\t%2%\t%3%\r\n
Schedule End Time = string:
Schedule Every = string:
Schedule Start Time = string:
Time Limit (sec) = double: 1800

```

Configuration Details	Description
MMP Segment ID	Required. This is an identifier you would define first in Audience Manager.
MMP Visitor ID Field	Map the MCID.

Segment Export with Custom Headers

Create custom column export headers for your segment export files to add easily understood descriptions for exported segments. This export feature also lets you output as TSV and CSV files.

New functionality has been added to Segment Export, including the ability to export with a header, or in CSV and TSV formats.

You can create column headers for your export files.

Creating a New Segment Export

1. Open a workspace and right-click **Tools > Detail Table**.
2. Right-click and select **Add Level > Extended** > Choose an item.
3. Right-click title and select **Add Attribute**.

Select a dimension from the menu.

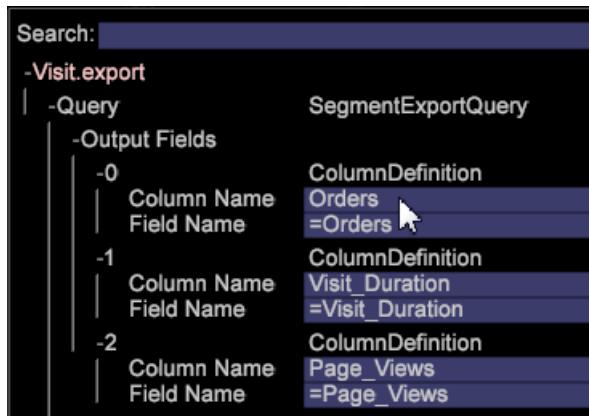
4. Right-click title and select **Add Metric**.

Select a metric from the menu.

5. Right-click title and select **New Segment Export**.



New Segment Export with Header automatically populates the Column Name with the name of the metric. **New Segment Export** requires you to set a custom name.

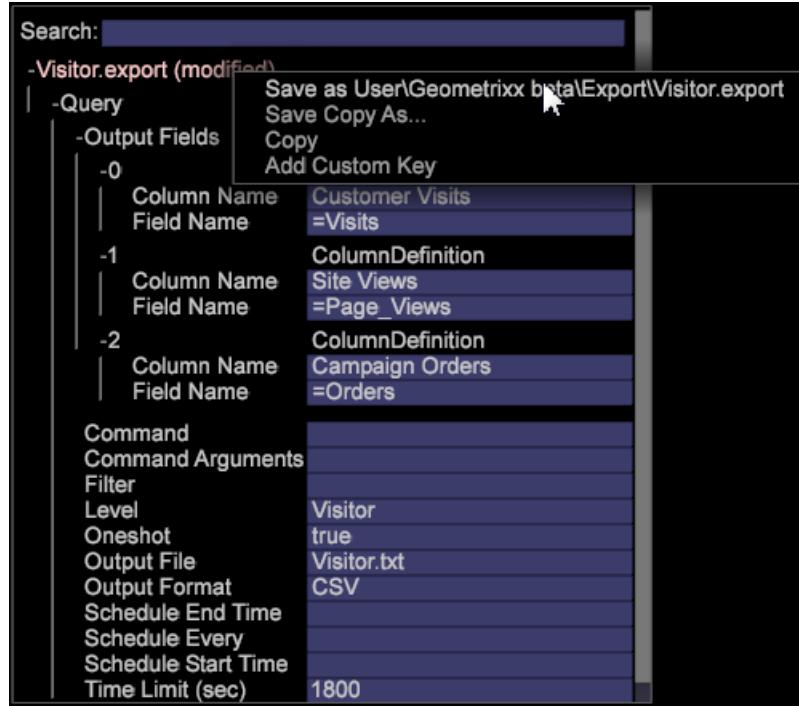


Note: The Column Name field cannot be left empty or the header will not be present.

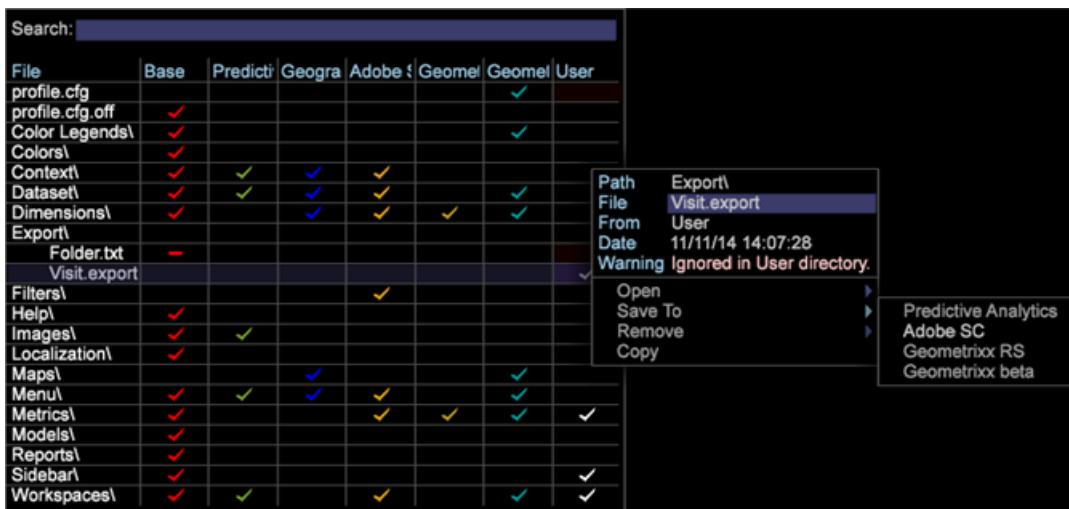
6. Right-click and name the segment and then click **Save Export File**.

An export window will open.

7. Right-click the export name and click **Save as <export filename>**.



8. Right-click Admin > Profile Manager > Expand Export. Find the export file you just created and save it to an existing profile.



The screenshot shows a file list with columns for File, Base, Predict, Geogra, Adobe, Geome1, Geome2, and User. A context menu is open over the file 'Visit.export', showing options like Path, Export, File, From, Date, User, and Warning. The 'Export' option is highlighted. A sub-menu for 'Export' lists Predictive Analytics, Adobe SC, Geometrixx RS, and Geometrixx beta. The 'Warning' message in the context menu states 'Ignored in User directory.'

File	Base	Predict	Geogra	Adobe	Geome1	Geome2	User
profile.cfg					✓		
profile.cfg.off	✓						
Color Legends\	✓						
Colors\	✓						
Context\	✓	✓	✓	✓			
Dataset\	✓	✓	✓	✓	✓		
Dimensions\	✓	✓	✓	✓	✓		
Export\							
Folder.txt	—						
Visit.export							
Filters\				✓			
Help\	✓						
Images\	✓	✓					
Localization\	✓						
Maps\			✓				
Menu\	✓	✓	✓	✓	✓		
Metrics\	✓		✓	✓	✓		✓
Models\	✓						
Reports\	✓						
Sidebar\	✓					✓	
Workspaces\	✓	✓	✓		✓	✓	

Clustering 2.0

The Cluster Builder now includes a KMeans++ algorithm (only the KMeans algorithm was previously supported) that uses a faster approach to finding centers for an expedited cluster-generation process.

KMeans Algorithms

In the [Cluster Builder](#), you can now select **Options > Algorithm** to select algorithms when defining clusters.

- **KMeans**. This algorithm uses canopy clustering to define the centers of the cluster.
- **KMeans++**. This algorithm expedites cluster building when running against large sets of data.

KMeans++ is an improved implementation of KMeans clustering algorithm because it provides better initialization of initial k centers. (The original KMeans algorithm chooses initial centers randomly.) KMeans++ selects the first center randomly. The remaining k-1 centers will be chosen one by one based on the distance a data point is to the closest existing center. The furthest data points have a better chance to be chosen as a new center than nearby data points. After the initial center is chosen, the procedure is performed exactly the same as the original KMeans clustering.

The workflow for KMeans++ is exactly the same as the workflow for KMeans clustering, except that you need to select **Options > Algorithm > KMeans++** in the cluster builder.



Note: Each DPU runs its own KMeans++ procedure on its own data portion. If the DPU has enough available memory (the ratio is configurable in the PAserver.cfg file), then the data of those involved variables will be brought into memory. The remaining k-1 initial center selection and converging iterations all happen in memory, which is faster than the previous KMeans clustering.

Trend Lines

Trend lines lets you overlay graphs to compare and interpret data.

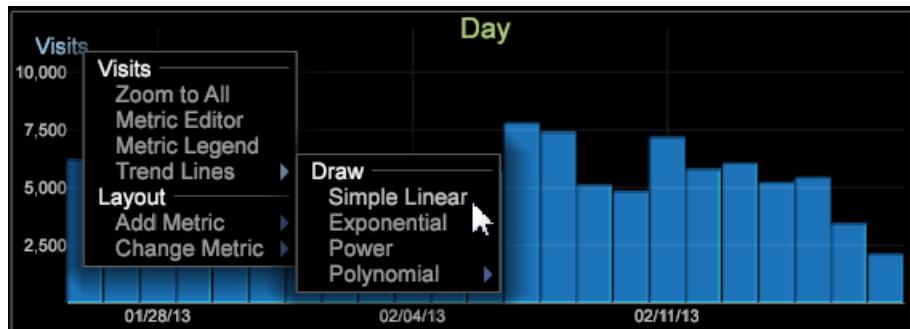
Like the [Scatter Plot](#) visualization, you can now set trend lines on a graph visualization to display the rate of change based on linear, exponential, power, or polynomial lines. The Trend Line feature allows you to overlay trend lines on a graph, most commonly over a Time dimension.

For example, in this graph comparison, we can see that Visits are trending up, but Orders are trending down.



To add a Trend Line

1. Open a graph and right-click the metric name in the upper left corner.
2. Click **Trend Lines** and select from the options.



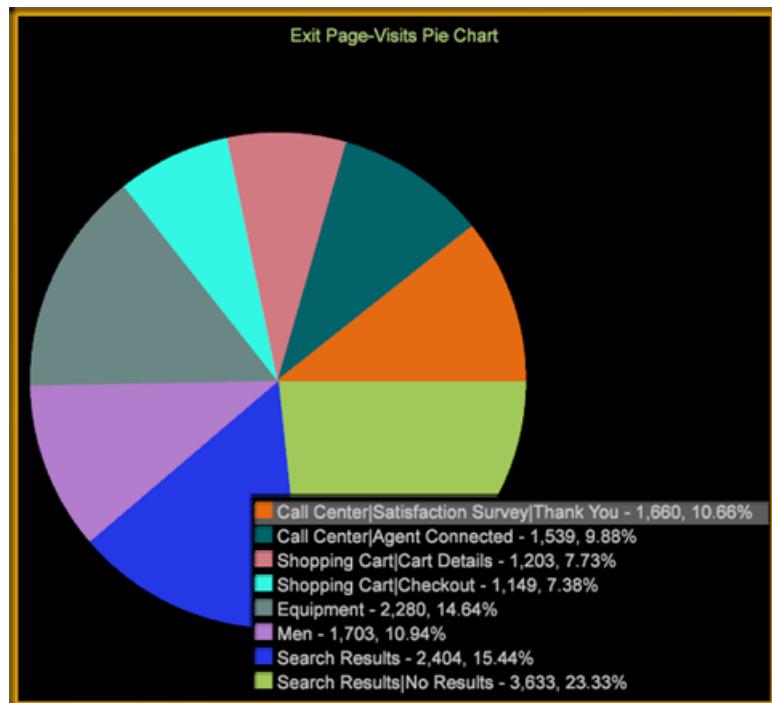
You can select the trend line to appear over the graph as **Simple Linear**, **Exponential**, **Power**, or **Polynomial**. Polynomial will create a polynomial regression trend line. Simple Linear will create a trend line as the rate of change along the regression line. Exponential calculates a trend line as $y = b \cdot \exp(a \cdot x)$ and Power as $y = b \cdot x^a$.

The trend will be calculated and rendered on the graph, and a callout will open displaying detailed information of the trend equation.

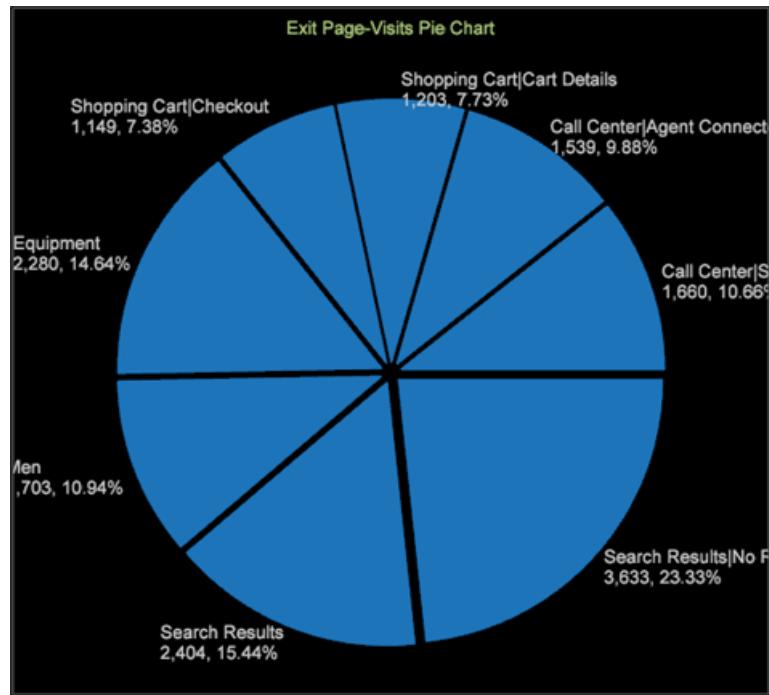


Pie Chart Update

Updates to the Pie Chart visualization lets you use default colors identified in a legend, or set colors based on the color chart. When you open a pie chart, the colors for data sets are set by default with each identified in the legend.

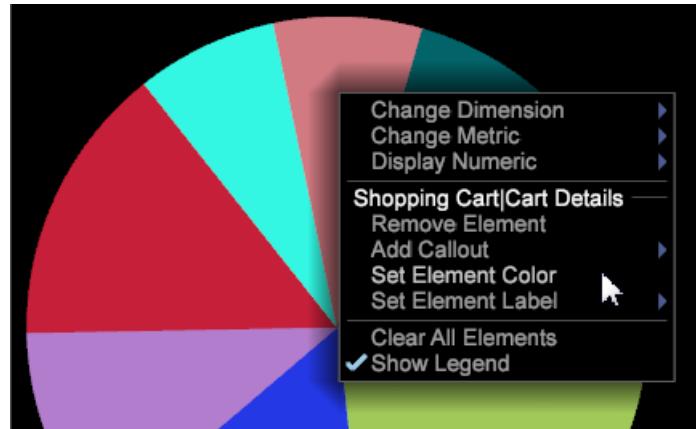


The legend can be toggled on and off by right-clicking the chart and selecting **Show Legend**. The result is a pie chart without color codes and elements identified in callouts for each section.



Customizing your Pie Chart

Right-click the pie chart to open a menu to modify your pie chart.



The menu allows you to change your dimension elements, metrics, and numeric display, as well as customize chart colors and labels.

Query String Grouping

Query String Grouping lets you integrate a large number of fields together.

Query String Grouping is specific to each profile, but works well in transformations as shown in this example:

1. Create the pairs you wish to bundle by adding a custom configuration file (E:\...\Dataset\Log Processing\SC Fields.cfg) and then adding the Transformation Type *BuildNameValuePair* as a parameter.

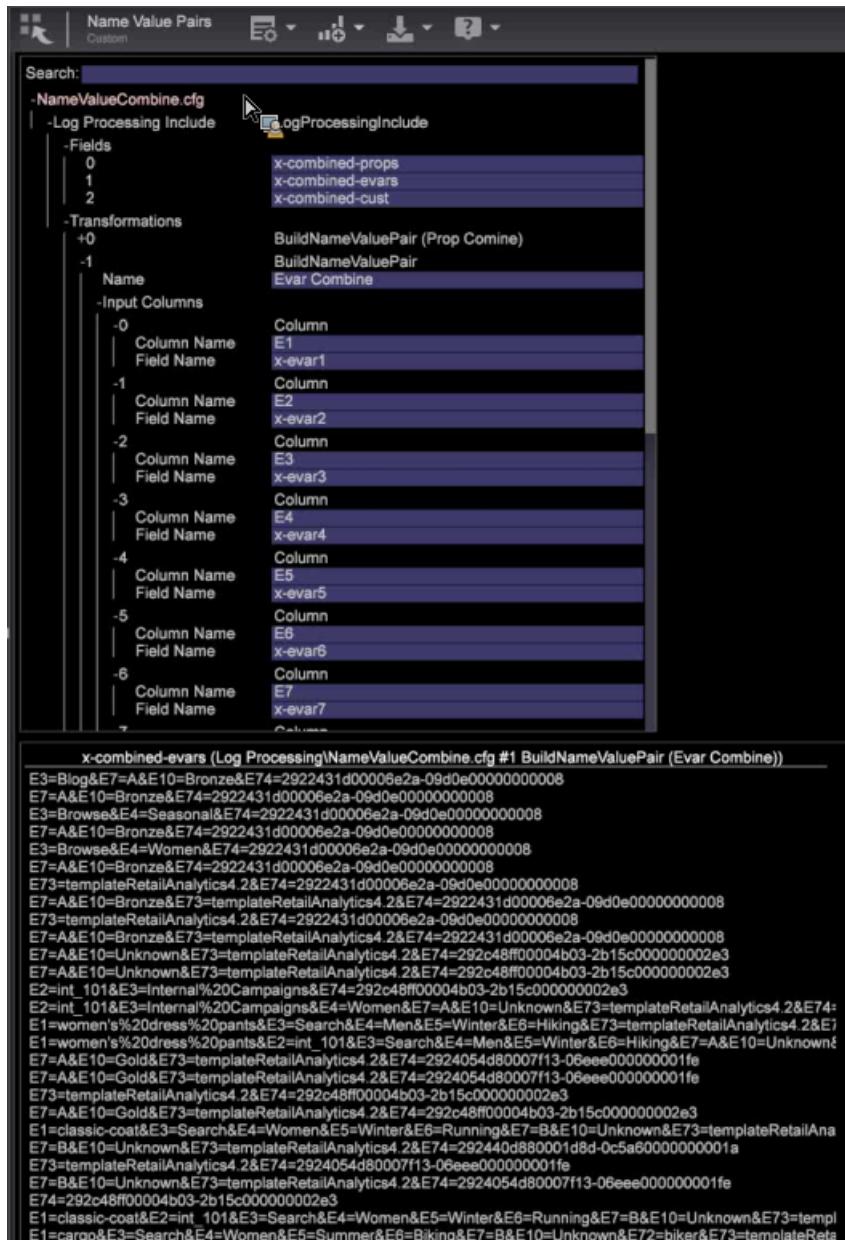
```
2 = BuildNameValuePair:
  Comments = Comment: 0 items
  Condition = AndCondition: 0 items
  Delimiter = string:
  Input Columns = vector: 1 items
  0 = Column:
    Column Name = string: e100
    Field Name = string: x-cust100
    ... (all the fields you wish to build)
    Name = string: Custom Events
    Output = string: x-event-list
```

2. Create a new file for extracting the condensed data into the fields you wish to use by adding a custom configuration file (E:\...\Dataset\Transformation\SC Fields Transformation.cfg) and then adding the Transformation Type *ExtractNameValuePair* as a parameter.

```
2 = ExtractNameValuePair:
  Comments = Comment: 0 items
  Condition = AndCondition: 0 items
  Delimiter = string:
  Input Field = string: x-event-list
  Name = string: Custom Events
  Output Columns = vector: 1 items
  0 = Column:
    Column Name = string: e100
    Field Name = string: x-cust100
    ... (all the fields you wish to extract)
    Name = string: Custom Events
    Output = string: x-event-list
```

Other Uses

If you have many fields with custom evars, props, and variables, during log processing you can build a name value pair to combine fields in a report. For example, you can build named-value pairs into combined fields to reduce the tempDB file size.



Latency Analysis

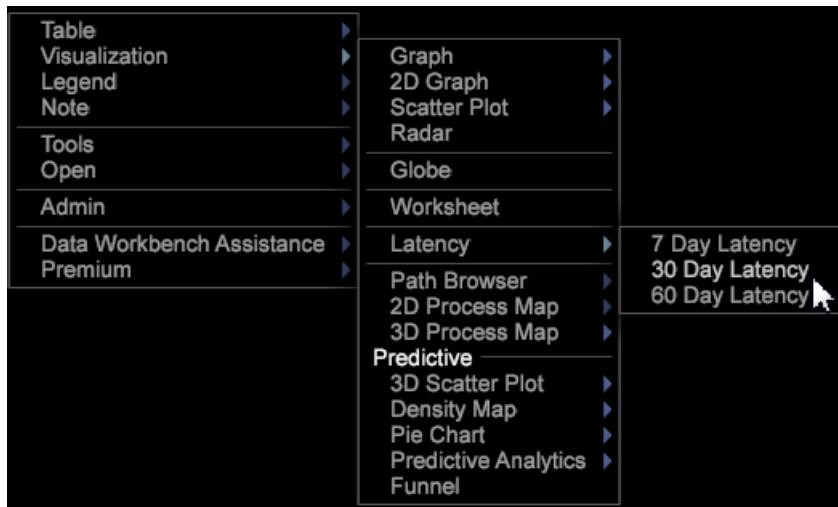
The Latency visualization lets you analyze latent customer behavior within a set number of days before or after an event occurred after a campaign or other type of event or period of time.

The **Latency** visualization allows you to set a metric to identify behavior before, during, or after an event occurred to determine its effect on customer behavior. For example, you can identify the effectiveness of a marketing campaign by viewing the revenue a week after an event occurred. Or you can show customer behavior a week previous to the event as a baseline to see an event's effect on behavior.

Using the Latency visualization, you can change the Time dimension from day, hour, week, or other time period, to visit, click-through, hit, or other countable dimension.

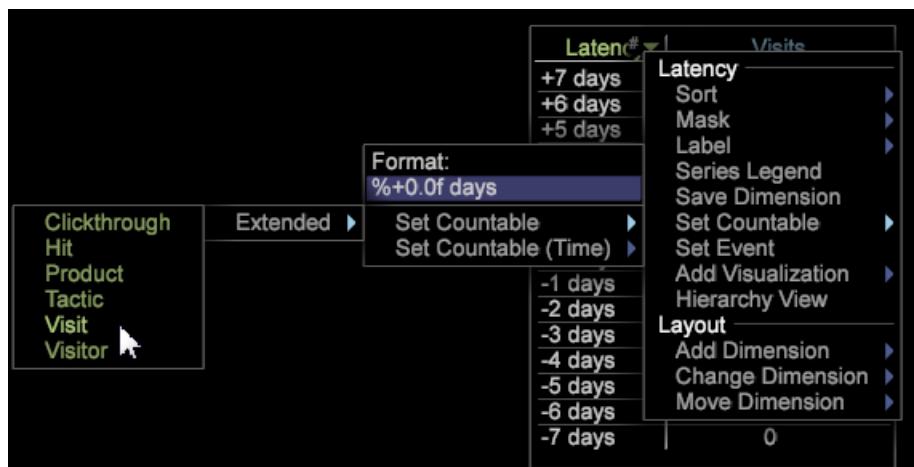
Setting up Latency Analysis

1. Open a workspace and right-click **Visualization > Latency**.
2. From the menu, select the number of days to analyze for latency events.



3. Right-click on the **Latency** label to open menu.

 - Using the **Set Countable** option, set a countable dimension such as visit, clickthrough, hit, and others.
 - Using the **Set Countable (Time)** option, set a time dimension such as day, hour, week, day of week, and hour of day.



4. Modify the Latency visualization.

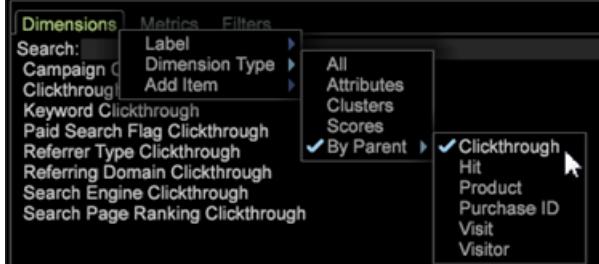
Right-click on the **Latency** header to select menu options to change countables, dimensions, to re-label, or to select or change other settings.

Data Workbench 6.21 Update

Data Workbench 6.2.1 provides new features and bug fixes.

New Features

Data Workbench 6.2.1 includes these new features:

Features	Description
Vertical Scroll Bars in Text and Wrapping Text features.	<p>Text boxes now have vertical scroll bars and wrapping text.</p>  <p>The "local sample" is a compact version of the dataset that is stored on your Data Workbench Client machine. It provides both instant approximate answers for your queries, as well as the capability to work offline.</p> <p>Visual Server is configured by default to provide Data Workbench with a 256MB sample of data. Some machines, especially those with less than 1GB of RAM, may perform poorly with so much data. In these cases, we recommend decreasing the Maximum Sample Size (MB) setting in the Insight.cfg file to 100:</p> <p>1) Change the Maximum Sample Size (MB) setting to the new value.</p>
Sorting Thumbnails on the worktop	<p>Names sorted on the worktop are now insensitive to the case of the character, sorting alphabetically AaBbCcDd instead of ABCDabcd .</p> 
Searching dimensions based on the parent dimension.	<p>In the Finders panel, you can now right-click on the Dimensions tab and click select Dimension Type > By Parent. A list of top-level countable dimensions will display. When you select one of these parent dimensions, a list of its subordinate dimensions will appear in the search results.</p> 

Features	Description
Dialog asking to open an external application.	<p>You will now be presented with a dialog box the first time you try to open an external application in Data Workbench.</p> <p>For example, if you open a text file in Notepad, you will get the following message.</p> <p>This will also create a local file called <code>InsightSES.dat</code> placed in the client install folder.</p>
Changing Toolbars to Buttons	<p>You can opt out of using the new toolbar icons provided in Data Workbench 6.2. by changing the <code>Toolbar Icons</code> argument in the <code>insight.cfg</code> file to <code>false</code>.</p> <pre>Toolbar Icons = bool: false</pre> <p>You will need to restart the client for the change to take effect.</p>
Reset options in Propensity Scoring and Decision Trees updated	<p>In the Propensity Scoring (Tools > Predictive Analytics > Propensity Score) and the Decision Tree (Visualizations > Predictive Analytics > Classifications > Decision Tree Builder) visualizations, you now have two reset options:</p> <p>Reset Models—Clears out the model but maintains the settings and inputs. Makes the Go button selectable.</p> <p>Reset All—Resets all settings (as in previous design).</p>

Bug Fixes

- The **Browsers** and **Operating Systems** lookup files will not be updated within the legacy **Traffic** profile (for example, `Lookups\Traffic\Browsers.txt`). Instead, configuration of the **Traffic** profile will utilize the **DeviceAtlas** bundle (`Lookups\DeviceAtlas\DeviceAtlas.bundle`) to provide this configuration information.
- Data Workbench 6.2.1 will be the last release to provide a download of the 32-bit client application. All future client application downloads will be 64-bit and continue to require Windows 7 or newer. Memory limitations of the 32-bit application are addressed with the introduction of the 64-bit application beginning with the 6.1 release.



Note: The 32-bit version of the Data Workbench client application may experience potential issues related to memory limitations when running predictive models using the clustering and scoring features.

Data Workbench 6.2 Release Notes

Data Workbench 6.2 release notes include new features, upgrade requirements, bug fixes, and known issues.

To view previous features and fixes based for each past release, see the [release note archives](#).

New Features

Data Workbench 6.2 includes these new features:

Features	Description
Data Workbench Client UI updates	<p>Data Workbench 6.2 includes new user interface features:</p> <ul style="list-style-type: none"> • New bookmarks panel • New icons in the workspace toolbar • Position objects in the workspace within a screen • New quick keys to change workspace views
Decision Trees	<p>Decision trees are a predictive analytics visualization used to evaluate visitor characteristics and relationships. The Decision Tree Builder generates a decision tree visualization based on a specified positive case and a set of inputs.</p>
Finders	<p>Use Finder panels in Data Workbench to select metrics, dimensions, and filters. These panels provide search support, sorting options, and drag and drop capabilities.</p> <p> Note: With the new Finder panels, you can export a list of your Dimensions, Metrics, and Filters to an MS Excel spreadsheet.</p>
Update to Binary Filter in Correlation Matrix	<p>The Binary Filter has been updated with new features, requiring you to rebuild any Correlation Matrix with a Binary Filter built in previous versions.</p>
Density Map	<p>The density map is a visualization that displays elements as shaded rectangles within a square map.</p>
Attribution Profile	<p>To quickly analyze attribution values (events to attribute responsibility for a successful conversion or sale), Data Workbench provides a rules-based Attribution profile with features for the Architect to set up the Attribution reports and the Analyst to run the reports.</p>
Analytic Reports	<p>Report templates standardize Adobe Analytics' reports for users of the data workbench who utilize the Adobe SC profile. These reports are identical to reports employed in Marketing Reports & Analytics (formerly SiteCatalyst).</p>
3D Scatter Plots	<p>A 3D Scatter Plot graphs the elements of a data dimension (such as Days or Referral Site) on a three-dimensional grid where the x, y, and z axes represent various metrics.</p>

Bug Fixes

- Updated the Visual Site lookup file to address search engine changes to the query search term.
- Fixed inaccurate error message, "Failed to import workspace", when importing a workspace in the client workstation even though the import was successful.
- Workstation connection error displaying "412 Configuration Conflict" message is now replaced with user friendly message that identifies system action.
- The "post" command can now be executed in Report Server.
- Fixed user interface errors in client user interface for Simplified Chinese.
- Adobe Analytics updated the data feed that powers Data Workbench to take advantage of the Master Marketing Profile that integrates with the Adobe Marketing Cloud. All Data Workbench users were required to prepare their environment for this transition by April 21, 2014.

The master marketing profile was introduced to provide a complete view of customers across Adobe Analytics. This new service is available within the Adobe Marketing Cloud to drive further value across analytics tools to start establishing the foundation for these features within Analytics. The new Marketing Cloud visitor identifier will be added to the data feed, along with other enhancements and improvements to adapt to the new data feed and global visitor identifier.

- When importing a workspace, an error message is displayed even though the import was successful.

Upgrade Requirement

- The Attribution profile is configured for users who have implemented the Adobe SC profile to employ the Analytics (SC/Insight) data feed. By default, the Marketing and Conversion events are employed as the default interactions evaluated in the rules-based models. See [Deploying the Attribution Profile](#) for additional information.
- For users of the Adobe SC profile upgrading to Data Workbench 6.2, if you are not using the default configurations, verify that the `x-bot_id` value in the `SC_Fields.cfg` file is being decoded properly and that the `x-bot_id` field is listed properly in the `Decoding_Instructions.cfg` and the `Exclude_Hit.cfg` files. This will only be an issue if you have modified the configuration file from the default configuration.
- If you have deleted unused fields in the `Dataset > Log Processing > SC_Fields.cfg` file for the Adobe SC profile, you will need to update to accommodate updated field values used for the Attribution profile (see [Deploying the Attribution Profile](#)).

Known Issues

- When 3D Scatter Plot Visualization includes callouts, the zoom may display plots outside the border of the visualization.

Workaround: Zoom the 3D Scatter Plot first and then add callouts to your visualization.

- Dragging metric from Finders panel to Metric Legend outside of the metric column will delete the Metric Legend from the workspace.

Workaround: Users that wish to drag metrics to the Metric Legend should drop in the first column (metrics column).

- Print Workspace using Sidebar and Both options will not include the Copyright information on the printed page.
- Using Workstation in remote desktop session will crash when renaming workspaces.
- (In Simplified Chinese version) Actual report outputs are valid in Report Server but email subject lines and attachment file names are garbled.
- (In Simplified Chinese version) When using word wrap in the Worksheet visualization, localized words are not being wrapped correctly resulting in junk characters added to the string.
- (In Simplified Chinese version) Unable to launch Insight.exe if the installation directory is named with non-English characters.

Workaround: Keep default names or rename using only English characters in the folder path to launch executables.

Data Workbench 6.2 features

Data Workbench 6.2 includes the following features.

Upgrade Requirement

- The Attribution profile is configured for users who have implemented the Adobe SC profile to employ the Analytics (SC/Insight) data feed. By default, the Marketing and Conversion events are employed as the default interactions evaluated in the rules-based models. See [Deploying the Attribution Profile](#) for additional information.
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- If you have deleted unused fields in the Dataset > Log Processing > SC Fields.cfg file for the Adobe SC profile, you will need to update to accommodate updated field values used for the Attribution profile (see [Deploying the Attribution Profile](#)).

Data Workbench Client UI Updates

Data Workbench 6.2 includes new user interface updates to the bookmarks panel, new icons in the workspace toolbar, the ability to drag the workspace within a screen, new quick keys, and updates to the pie chart visualization.

[New Bookmark Features](#)

[New Icons in Workspace](#)

[Drag Workspace Views](#)

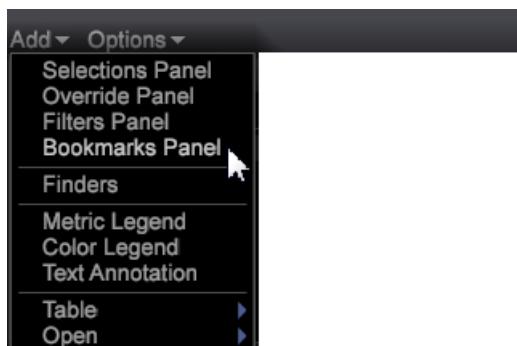
[Quick Keys to Change Workspace Views](#)

New Bookmark Features

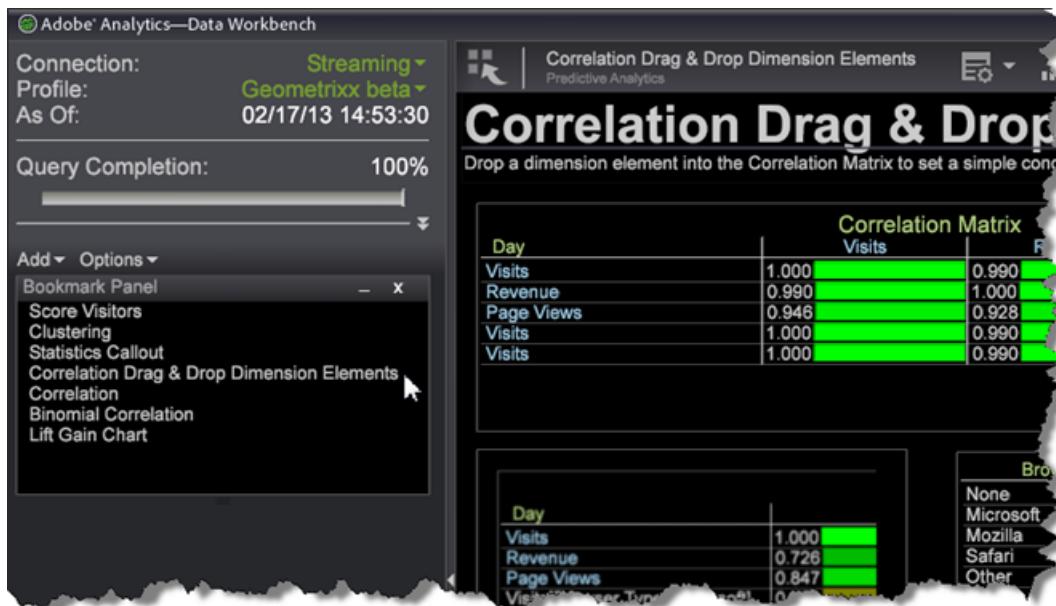
You can now bookmark significant workspaces to quickly move between visualizations and reports employed in your workflow.

Working with Bookmarks

1. Bookmark a workspace by clicking the Bookmark icon  in the upper right corner of the toolbar.
2. Click **Add > Bookmarks Panel** in the left pane to open a list of bookmarks.



3. To open a bookmarked workspace, click a workspace name in the **Bookmark Panel**.



The selected workspace will open. When you click another bookmarked workspace, the previous workspace will close and the newly selected workspace will open, allowing you to quickly navigate through your workflow.

To delete a bookmark:

- In the Bookmark Panel, right-click and select **Remove <bookmark title>** to delete a selected bookmark, or select **Clear All Bookmarks** to delete all bookmarks.
- You can also right-click on the workspace in the thumbnail view within the worktop and select **Clear Bookmark**.



Important:

- 25 bookmarks can be saved.
- If you add a bookmark and then move the location of the workspace, the bookmark will be invalid and must be deleted from the Bookmark Panel and reset.

New Icons in Workspace

Data Workbench 6.2 now replaces the text in the workspace with icons. You can still hover over and see the tool tip message identifying the icon, including **File**, **Add**, and **Export**.



A new **Help** icon is added to access the documentation and other knowledge centers, including the following links:

Documentation links	Description
Marketing Reports & Analytics	Open to the Adobe Marketing Reports & Analytics help page.
Idea Exchange	Open to the Idea Exchange login. This online portal allows users to provide update changes and enhancement ideas to data workbench. These customer-focused ideas can then be voted on by all users.

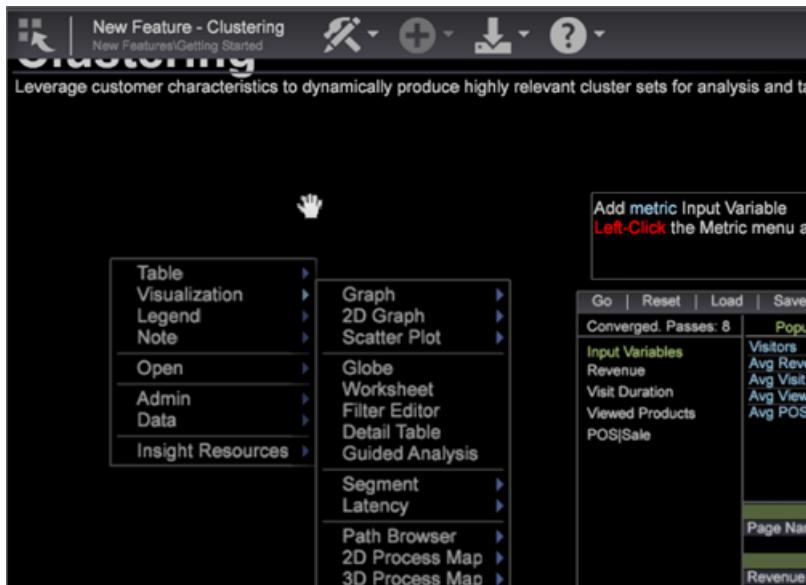
Documentation links	Description
Help	Open the Data Workbench documentation . You can also press <F1> to open help within a workspace.
About	Open to identify the client version of data workbench.



*Note: You can also press **<F1>** to open the documentation from a workspace.*

Drag Workspace Views

If a workspace is larger than the viewable screen, you can move the view to see all elements within the workspace. You can click in the background (outside of the visualizations and tables) and drag the screen to move the viewable area within the workspace. The cursor will change to a hand icon when dragging the view within the workspace frame.



Quick Keys to Change Workspace Views

New quick keys let you resize and refit workspaces between window and full page views. See the [Quick Reference](#) for more keyboard quick keys.

Commands	Quick Keys	Combined menu commands
Full screen view. Workspace fills the screen and refits to the new size.	Ctrl plus Ctrl + (on keypad) <i>or</i> Ctrl Shift + (on keyboard)	<ul style="list-style-type: none"> File > Page Size > Fill Screen <i>followed by</i> File > Refit Workspace
Window view. Workspace displays in a standard window view and refits to the new size.	Ctrl minus Ctrl -	<ul style="list-style-type: none"> File > Page Size > Standard <i>followed by</i>

Commands	Quick Keys	Combined menu commands
		• File > Refit Workspace

Decision Tree Builder

Decision trees are a predictive analytics visualization used to evaluate visitor characteristics and relationships. The Decision Tree Builder generates a decision tree visualization based on a specified positive case and a set of inputs.

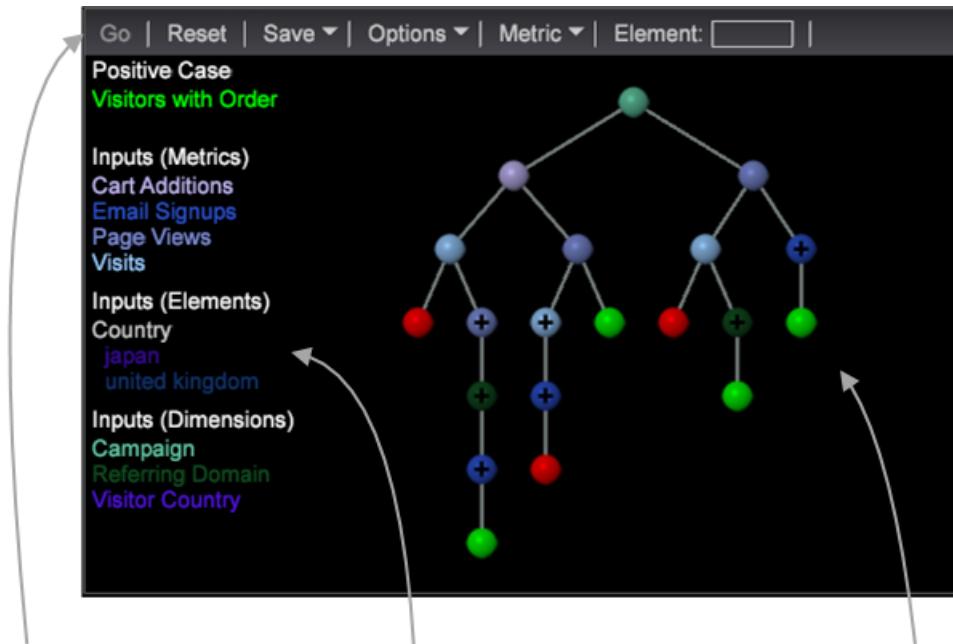
A Decision Tree is a binary classifier with a set of rules (or filters) identifying visitors who satisfy specific rules based on a positive case. A decision tree sets rules to classify visitors who satisfy (or do not satisfy) this positive case. These rules generate a tree map to provide a level of confidence to meet these positive case results.

A Decision Tree is built by examining inputs at each level and choosing the one that provides a maximum gain of information at a specified split point. Split points for each variable-level generates two sets:

- Values less than or equal to the split point, and
- Values greater than the split point.

Use decision trees to

- Perform meaningful analysis and interpretation in less time.
- Employ automated segment generation.
- Quickly make inferences from a model based on a large amount of data.



Toolbar and Menus	Input Listing	Tree Display
The toolbar includes buttons and menu commands for the Decision Tree, including features to set the Positive Case and add Input Listings.	This area displays the inputs into the tree model. They are color coded to match nodes in the Tree Display area.	This area displays the tree model with leaf nodes color-coded based on its prediction: green for a True prediction of the Positive Case, and red for a False prediction.

<p>Like other visualizations, the Element box lets you drag and drop Dimension and Elements, although you can also drag directly from the Finders pane.</p> <p>For additional information, see Decision Tree Options.</p>	<p>Right-clicking on an input allows you to remove the input from the model and reset.</p> <p>If you hover over a tree node, it will display the split conditions along the branch to that node and the prediction at that node with its confidence value.</p>	<p>The split nodes are color coded to the inputs that match their selection condition.</p> <p>Hovering over a node displays information about the split and expands the inputs listing to display the split points along the branch and the distribution of the training set.</p> <p>Nodes below a threshold are not displayed by default. Click on an expandable node (indicated by a + symbol) to explore a branch. Click on the root node to return to the full tree display.</p>
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Building a Decision Tree

Set up a Decision Tree by identifying a positive case and adding metric and dimension inputs to evaluate the data and explore the decision tree.

Follow these steps to build a decision tree.

1. Open a new workspace.

After opening a new workspace, you might need to click **Add > Temporarily Unlock**.

2. To open the Decision Tree Builder, right-click **Visualization > Predictive Analytics > Classification > Decision Tree Builder**.
3. Set a **Positive Case**.

You can define a positive case for a decision tree by selecting dimensions in a Finder or dimension elements in a table, or by designing a filter in the Design Filter. In fact, the positive case can be a combination of multiple selections in the workspace including filters, dimensions, elements, and all types of Data Workbench visualization values.

- **Design and Apply a Filter** as a positive case. Right-click in the workspace and select **Tools > Filter Editor** to design and apply a filter.



- Add **Dimensions** as a positive case. In the workspace, right-click and select **Tools > Finders** (or select **Add > Finders** in the left pane). Type a dimension name in the **Search** field and then select a dimension.



- Add **Metrics** as a positive case. Select from the Metrics menu in the toolbar (or right-click and select **Tools > Finders** or select **Add > Finders** in the left pane to open a Metrics table). Select a metric as your positive case.
- Add **Dimension Elements** as a positive case. Right-click in the workspace and select **Table** to open dimension elements, then select from the dimension elements to set your positive case.

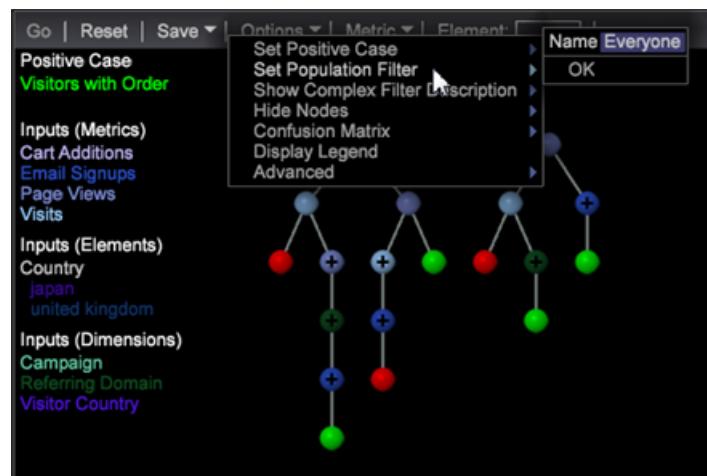
4. Click **Options > Set Positive Case**.

This sets the positive case and lets you name it. The name will appear under the **Positive Case** heading in the workspace.

 **Note:** When you set the positive case the Decision Tree uses the current workspace selection, which can be defined as the **Visitors** (or whatever top-level countable is defined, but in most cases **Visitors**) that match the current selection within the workspace. These combine as a single filter for a single positive case (not multiple positive cases).

Clicking **Set Positive Case** when there is no selection will clear the positive case.

5. (optional) Select **Set Population Filters** to define the visitor population to be classified.



If no population filter is applied, then the training set is drawn from all visitors (default is "Everyone").

 **Note:** Click the **Show Complex Filter Description** to view the filtering scripts for the Positive Case and Population Filter.

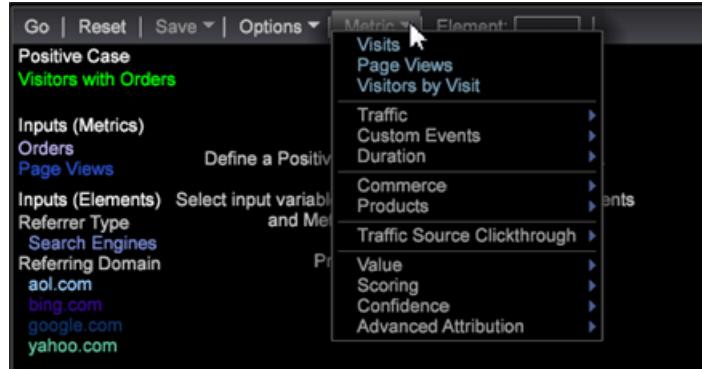
6. Add Metrics, Dimensions, and Dimension Elements as inputs.

You can select inputs by dragging and dropping from the Finder panels or from tables for individual dimension elements. You can also select from the **Metrics** menu in the toolbar.

- Add **Metrics** as inputs.

Select Metrics from the toolbar. Press **Ctrl + Alt** to drag one or more metrics to the Decision Tree Builder.

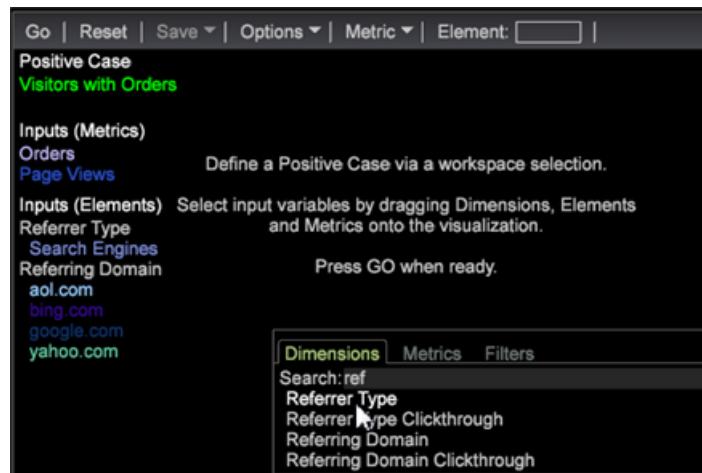
The metric will appear in the **Input (Metrics)** list as an input with unique color-coding.



- Add **Dimensions** as inputs.

In the workspace, right-click and select **Tools > Finder** and type the dimension name in the **Search** field. Press **Ctrl + Alt**, select a dimension, and drag the dimension to the Decision Tree Builder.

The dimension will appear in the **Input (Dimensions)** list with a unique color-coding.



- Add **Dimension Elements** as inputs.

In the workspace, right-click and select a Dimension table. Select Dimension Elements, press **Ctrl + Alt**, and drag the selected elements to the Decision Tree Builder.

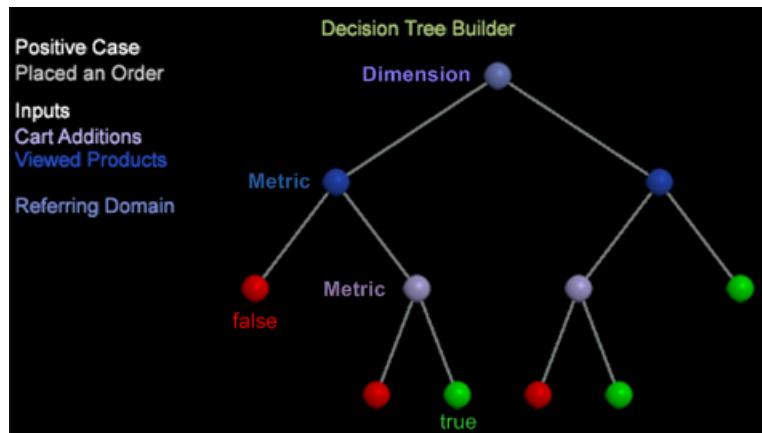
The dimension elements will appear in the **Input (Elements)** list with a unique color-coding.



Important: You can select up to a maximum of fourteen inputs to be evaluated. An error message will appear if too many inputs are added.

7. Select **Go** from the toolbar.

The decision tree will build based on the selected dimensions and metrics. Simple metrics such as Cart Additions will build quickly, while complex dimension such as Visit Duration with multiple data points will build more slowly with a percentage of the completion displayed as it converts. The tree map will then prune and open for user interaction. The dimension and metric inputs will be color-coded consistent with the node names.



The leaf node displays as green (true) or red (false) if the tree has been pruned and if there is a prediction of **True** or **False** following the pruned branches.



Attention: The training sample is pulled from the dataset for the tree builder to use. Data Workbench uses 80 percent of the sample to build the tree and the remaining 20 percent to assess the accuracy of the tree model.

8. Verify accuracy using the **Confusion Matrix**.

Click **Options > Confusion Matrix** to view the Accuracy, Recall, Precision and F-Score values. The closer to 100 percent, the better the score.

The Confusion Matrix gives four counts of accuracy of the model using a combination of values:

- Actual Positive (AP)
- Predicted Positive (PP)
- Actual Negative (AN)
- Predicted Negative (PN)



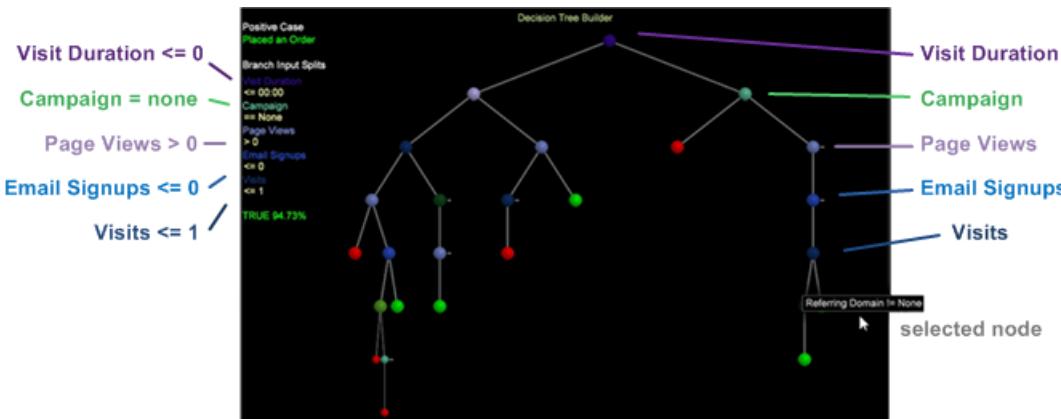
Tip: These numbers are obtained by applying the resulted scoring model of the 20 percent testing data withheld and already known as the true answer. If the score is greater than 50 percent, it is predicted as a positive case (that matches the defined filter). Then, $\text{Accuracy} = (TP + TN) / (TP + FP + TN + FN)$, $\text{Recall} = TP / (TP + FN)$, and $\text{Precision} = TP / (TP + FP)$.

9. **Explore the decision tree.**

After generating a decision tree, you can view the path of the prediction and identify all visitors who meet the defined criteria. The tree identifies the input split for each branch based on its position and color-coding. For example, if you select the Referring Domain node, the nodes leading to that split are listed by color-code to the left of the tree.

You can make selections of the leaf nodes to select branches (rule sets) of the decision tree.

For this example: If the visit duration is less than 1, no campaign exists, at least one page view exist, no email signups, and there was at least one visit. The projections on this meeting criteria and placing an order is **94.73** percent.



Decision Tree interaction: You can select multiple nodes on the tree using the standard **Ctrl-click** to add, or **Shift-click** to delete.

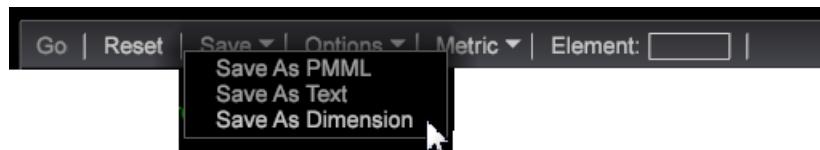
Color-coded nodes: The color of the nodes matches the color of the input dimensions and metrics as assigned by Data Workbench.

Bright green and red nodes at the leaf-level of a pruned branch predicts the node as True or False.

● Bright green	Identifies that the node equals true and that all conditions are met.
● Bright red	Identifies that the node equals false and not all conditions are met.

10. Save the Decision Tree.

You can save the Decision Tree in different formats:



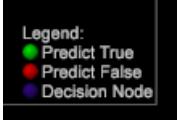
- Predictive Markup Language (**PMML**), an XML-based file format used by applications to describe and exchange decision tree models.
- **Text** displaying simple columns and rows of true or false, percentages, number of members, and input values.
- A **Dimension** with branches corresponding to predicted outcome elements.

Decision Tree Options

The Decision Tree menu includes features to set the positive use case, filters, leaf distribution options, confusion matrix, and other advanced options.

Toolbar buttons	Description
Go	Click to run the decision tree algorithm and display the visualization. This is grayed-out until there are inputs.
Reset	Clears inputs and decision tree model and resets the process.
Save	Save the Decision Tree. You can save the Decision Tree in different formats: <ul style="list-style-type: none"> • Predictive Markup Language (PMML), an XML-based file format used by applications to describe and exchange decision tree models. • Text displaying simple columns and rows of true or false, percentages, number of members, and input values. • A Dimension with branches corresponding to predicted outcome elements.
Options	See table below for Options menu.
Metric	Lists Metrics that can be added to the model
Element	Drag and drop Dimensions and Elements to this box (or directly to the visualization).

Options menu	Description
Set Positive Case	Defines the current workspace selection as the model's Positive Case. Clears the case if no selection exists.
Set Population Filter	Defines the current workspace selection as the model's Population Filter and will be drawn from visitors who satisfy this condition. The default is "Everyone."
Show Complex Filter Description	Displays descriptions of the defined filters. Click to view the filtering scripts for the Positive Case and Population Filter.
Hide Nodes	Hides nodes with only a small percentage of the population. This menu command displays only when the decision tree is displayed.
Confusion Matrix	Click Options > Confusion Matrix to view the Accuracy, Recall, Precision and F-Score values. The closer to 100 percent, the better the score. <p>The Confusion Matrix gives four counts of accuracy of the model using a combination of values:</p> <ul style="list-style-type: none"> • Actual Positive (AP) • Predicted Positive (PP) • Actual Negative (AN) • Predicted Negative (PN) <p> <i>Tip: These numbers are obtained by applying the resulted scoring model of the 20 percent testing data withheld and already known as the true answer. If the score is greater than 50 percent, it is predicted as a positive case (that matches the defined filter). Then, Accuracy = (TP + TN)/(TP + FP + TN + FN), Recall = TP / (TP + FN), and Precision = TP / (TP + FP).</i></p>

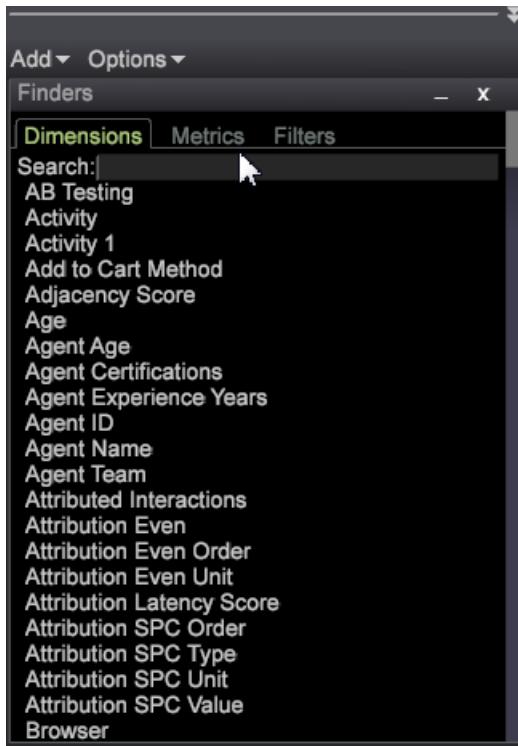
Options menu	Description
Display Legend	<p>Allows you to toggle a legend key on and off in the Decision Tree.</p>  <p>This menu command displays only when the decision tree is displayed.</p>
Advanced	<p>Click to open Advanced menu for in-depth use of Decision Tree. See table below for menu options.</p>

Advanced menu	Description
Training Set Size	Controls the size of the training set used for the model building. Larger sets take longer to train, smaller sets take less time.
Input Normalization	Allows the user to specify whether to use the Min-Max or the Z Score technique to normalize inputs into the model.
SMOTE Over-Sampling Factor	When the Positive Case does not occur very often (less than 10 percent) in the training sample, SMOTE is used to provide additional samples. This option allows the user to indicate how many more samples to create using SMOTE.
Leaf Class Distribution Threshold	Allows you to set the threshold assumed for a leaf during the tree building process. By default, all members of a node must be identical for it to be a leaf (prior to pruning stage).

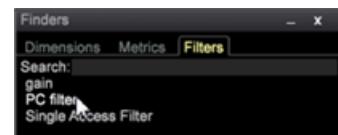
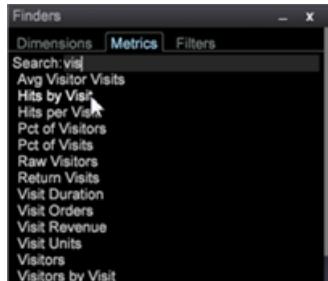
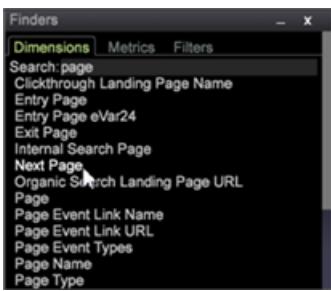
Finders

Use Finder panels in Data Workbench to select metrics, dimensions, and filters. These panels provide search support, sorting options, and drag and drop capabilities.

A Finder panel can be opened in the left sidebar or within a workspace.



Dimensions Finder	Metrics Finder	Filters Finder
A list of all dimensions in your query model.	A list of all metrics in your query model.	A list of all filters created for your organization.



To open a Finder:

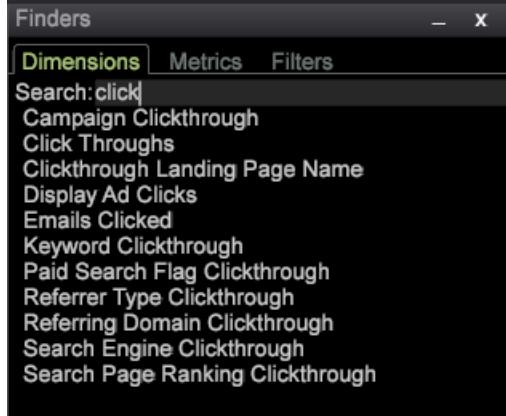
- Right-click in a workspace and select **Tools > Finder**.

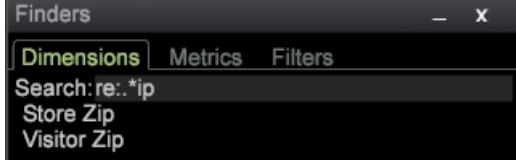
The Finder pane with tabs for Metrics, Dimensions, and Filters will open in the workspace.

- Right-click in the left sidebar and select **Add > Finder**.

The Finder pane will open in the left panel.

The **Finder** includes the following features:

Finder Features	Details
Drag and drop	<p>You can drag and drop dimensions or metrics from the panel to a visualization in the workspace to change the dimension or add new metrics.</p> <ol style="list-style-type: none"> 1. Hold down the <Ctrl> and <Alt> keys and select the dimension or metric from the Finder panel. 2. Drag a new dimension from the pane and drop it to the visualization to change or add dimensions. 3. To add metrics, drag a new metric from the pane and drop it on the metric header of the selected visualization. <p>This will work for all relevant visualizations, including tables, visitor cluster, correlation matrix, scatter plots, and the 2-D bar graph (depending on the axis).</p>
Search	<p>A Search box in the Finder panels lets you filter names for Dimensions, Metrics, and Filters.</p> <ul style="list-style-type: none"> • Pattern matching (simple glob search). Start typing the name of a required dimension, metric, or filter entity in the Search field and only matching strings contained anywhere in the name will be filtered and displayed in the Finders pane. <p>For example, enter:</p> <p><code>Search:click</code></p> <p>You could get the following results in the Dimensions Finder:</p>  <p>Standard pattern matching lets you use the wildcard characters, such as . (dot), "?" , and "*" (star).</p> <ul style="list-style-type: none"> • Regular expressions. More complex regular expressions are also supported for added search capability. Add the prefix "re:" before your search term (no spaces) to interpret as a regular expression. <p>For example, enter:</p> <p><code>Search:re.*ip</code></p> <p>You could get the following results in the Dimensions Finder:</p>

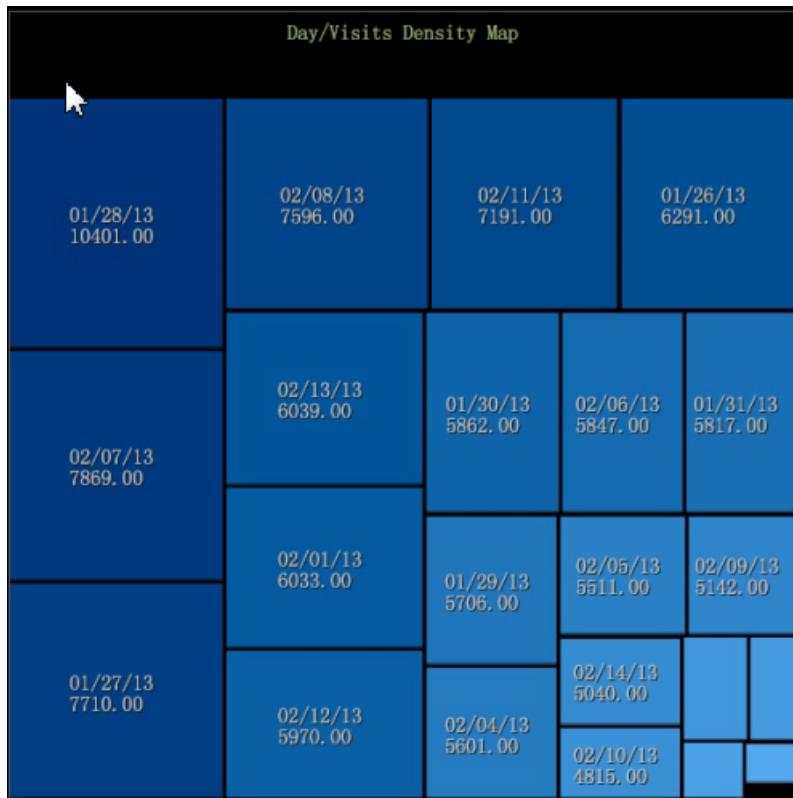
Finder Features	Details
	 <p>For in-depth search information, see regular expressions.</p>
Dimension Type	<p>In the Dimension tab, you can right-click on the tab heading to sort by the type of dimension.</p>  <ul style="list-style-type: none"> • Attributes—Dimensions built based on characteristics of the visitor, products, geography, time, video, and other attributes. • Clusters—Dimensions built within the cluster builder. • Scores—Dimensions built within the propensity scoring.
Label	<p>In each tab, you can right-click and select Label to rename the Finder pane.</p>  <p>The default Dimensions, Metrics, and Filters labels can be changed to a tab name that meets your organization's conventions.</p>
Add Item	<p>In each tab, you can right-click and select Add Item to open a table and manually add Dimensions, Metrics and Filters.</p>
Finders bar	<p>Right-click in the Finders bar in the left sidebar to open a menu for additional features.</p>

Finder Features	Details
	
Close	Right-click in the Finders bar and select Close to close a Finders pane.
Save	Save the list locally by right-clicking in the header bar and selecting the Save option.
Export	<p>You can export a list of selected dimensions, metrics, or filters from the Finder panel by right-clicking in the Finders bar and selecting Export from the menu.</p> <p>Add a name and export to Microsoft Excel.</p>
Copy	Copy a list of Dimensions, Metrics, or Filters. You can copy as a file or as a graphic in Dark Background, Light Background, or Monochrome.
Minimize	Minimize the Finder pane. Only the Finders bar will appear.
Borderless	Displays a pane with no border lines for Finders in the workspace (but not in the left sidebar).

Density Map

The density map visualization displays elements as shaded rectangles within a square map.

The sizes of the rectangles are dependent on element values, where larger values are represented by rectangles of larger area. Similar to a pie chart, this visualization allows you to quickly see which elements constitute the greatest percentage of the selected dimension.



To create a density map:

1. Open a new workspace.

After opening up a new workspace, you may need to click **Add > Temporarily Unlock**.

2. Click **Visualization > Density Map**.
3. Select a **Dimension** from the menu.

For example, select **Time > Days**.

In contrast, selecting **Time > Hours** would give you more elements with smaller values displaying as smaller rectangles.



Note: You will want to pick a dimension with multiple elements per your needs. The current limit is 200 of the largest elements for each dimension.

4. You can change dimension views by opening **Visualization > Table** and selecting across elements from the table to display in the map.



The map will respond to selections from the table.

5. Hovering over small elements will display their name and value in text that appears near the mouse cursor.
6. Mask elements by right-clicking and selecting **Mask**, then choose an option.



To display all masked nodes, select **Unhide All**.

7. Spotlight elements by right-clicking and selecting **Spotlight**, then choose an option. Spotlighting lets you highlight and dim elements in a range.
8. Add a color legend to the workspace. You can identify values in the map using the color legend.

You can add a color legend to the workspace and the nodes will change color based on the additional dimension of data.

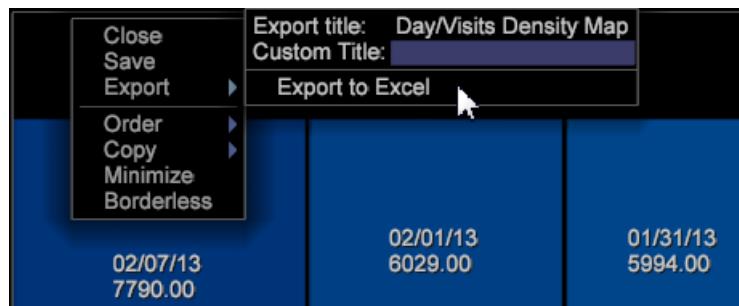
9. Change the dimension or metric by right-clicking the map title and selecting from the menu.



10. Add callouts by right-clicking a cell and selecting **Add Callout**. You can select from different types or visualizations from the menu.



11. As in all visualizations, you can right-click above the title bar for basic commands to Close, Save, Export to Microsoft Excel, Order, Copy, Minimize, and Borderless to display a visualization without a border.



12. The Density Map lets you select and deselect multiple elements similar to other visualizations:

- Left-click to select an element.
- Ctrl + click to select multiple elements.
- Shift + click to deselect an element.

- Right-click within selected elements to open a menu. Then choose **Deselect** or **Deselect All** to clear selected elements.

Additional Options

Right-click the Density Map to open a menu with these options:

Option	Description
Add Callout	<p>Add a text or graphic as a callout in the visualization to further identify or describe an element.</p> <p>You can also select a blank Metric Legend, Table, Line Graph, or Scatter Plot based on the selected element in the Density Map. You can then add metrics and dimensions to these blank visualizations as needed.</p>
Mask	<p>Masking options let you hide selected elements. Right-click to display Mask options.</p> <p>Hide This Element—Choose this option to mask a single element that you have selected.</p> <p>Hide Selected—Choose this option to mask multiple elements that you have selected.</p> <p>Show Top—Choose this option to display only the top 100, 50, 25, or 10 top elements based on the values in the Density Map.</p> <p>Show Bottom—Choose this option to display only the bottom 100, 50, 25, or 10 top elements based on the values in the Density Map.</p>
Spotlight	<p>Spotlighting lets you highlight and dim elements in a range. Right-click to open a menu of options.</p> <p>Show Top—Choose this option to highlight only the top 100, 50, 25, or 10 top elements based on values in the Density Map.</p> <p>Show Bottom—Choose this option to highlight only the bottom 100, 50, 25, or 10 top elements based on values in the Density Map.</p>
Deselect Deselect All	Select these commands to deselect the current element, if selected, or deselect all elements that are selected.

Attribution Profile

Using the new rules-based Attribution profile in Data Workbench, you can quickly analyze attribution events and assign responsibility leading up to a successful conversion defined by you. The Attribution profile comes complete with the information necessary for your data Architect to set up and extend its features, and includes pre-built workspaces for your Analyst to jump right in and start analyzing.

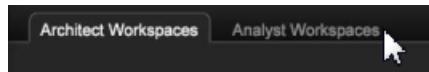
The Attribution profile allows you to gain a new perspective on the relationships between your marketing efforts and a successful customer lead generation or sales conversion. The Attribution profile helps you qualify interactions that should receive allocation of credit for realized revenue or participation downstream in the customer journey. It helps identify the impact of your marketing efforts and costs by allowing you to quickly analyze attribution events, and then assign responsibility for first or last touches or other events leading to a successful sale.

⚠ Important: The Attribution profile is configured for immediate use by users who have implemented the Adobe SC profile that uses the Analytics (SC/Insight) data feed. By default, the Marketing and Conversion events are employed as the default types of interactions evaluated in the provided rules-based models.

See [Deploying the Attribution Profile](#) and [Attribution Models](#) for additional information.

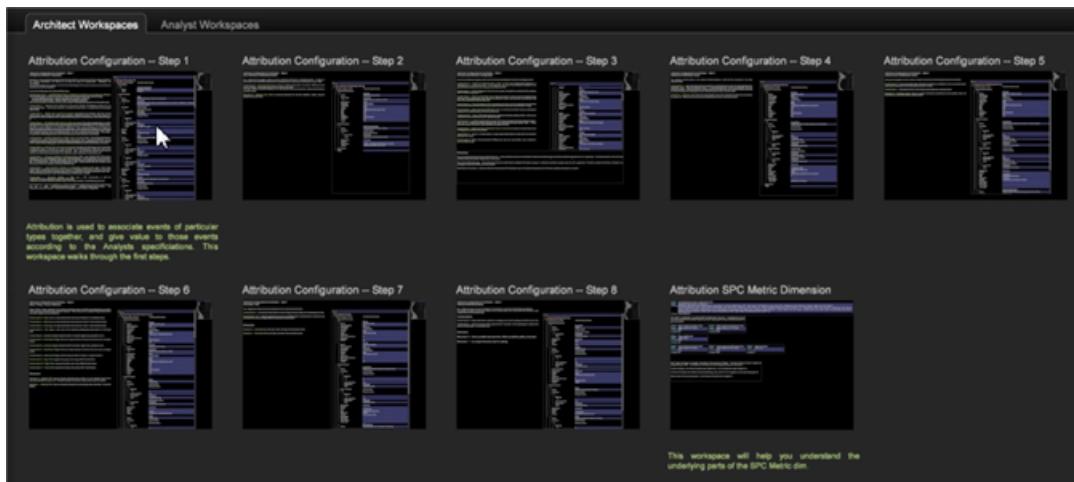
Architecture and Analyst Workspaces

Within the Attribution profile, you have Architect and Analyst workspaces defined on separate tabs in the workbench.



Architecture Workspaces

Within the **Attribution** tab, click the **Architect Workspaces** tab to open workspaces specifically designed to set up your configuration files for basic attribution modeling.



The Architecture tab includes workspaces to step through each of the configuration files in the profile dataset folder. For example, **Attribution Configuration - Step 1** lets you identify the Attribution values within the Transformation section of the `profile.cfg` file.

Attribution Configuration for Architects -- Step 1
Configuring Attribution Parameters

Attribution is used to associate events of particular types together, and give value to those events according to the Analysts specifications. By default we are using two types of events/touches "Marketing" and "Conversion". For use with the Adobe SC package out of the box the Marketing and Conversion touches are associated with Campaigns and Orders respectively.

Look at the Configuration to the right and follow along.

Transformation 0 and 1 -- Identify Marketing Tactics for Attribution & Identify Conversion Tactics for Attribution both identify the types of attribution events by configuring the attribution flag field (x-attribution-flag).

- 0 is set as Marketing touches - default x-campaign and a "product" row type (1)
- 0 is set as Conversion touches - default x-order and a "product" row type (1)

We use this convention so that we can sum up the number of Marketing touches prior to a Conversion event.

Transformation 2 -- Marketing Tactic attributes for conversions formats the Marketing touches into one pipe-delimited field. If there were more than one field they would need to be added here and formatted appropriately.

Transformation 3 -- Initialize block key field on conversion row initializes the Attribution Block Key that will persist across rows allowing the sorting and organizing of Marketing touches to Conversion touches by passing the Purchase ID (default) to the x-attribution-block-key field on the Conversion row (x-attribution-flag = 0).

Transformation 4 -- Set attribution block key for all other rows uses a Cross Rows transformation to set the Attribution Block Key value for all rows to the Marketing touches to be associated with the Conversion event. By default in this configuration the "Attribution Window" has been set for 30 Days, set according to the Attribution Window parameter at the top of the configuration. This transformation initiates on a row with an empty x-attribution-key field and looks ahead 30 days to the FIRST row which is a Conversion row and copies the x-attribution-block-key value to the Marketing touch row in the x-attribution-block-key field. This creates an association of Marketing touches to the Conversion event to which they are to be attributed.

Transformation 5 -- Calculate Total Number of Tactics Prior to Conversion uses a Cross Rows transformation to calculate the number of Marketing touches before a Conversion event. By using the Attribution Key we

Search:

File
profile.cfg
profile.cfg.off
Color Legend
Colors
Context
Dataset
Client.cfg
Cluster.cfg
Log Processing.cfg
Log Processing Mode.cfg
PAServer.cfg
Segment Export.cfg
Server.cfg
Transformation.cfg
Log Processing
TimeZone
Transformation
Countables.cfg
Internal Domains.cfg
Lookup Parameters.cfg
Time Dimensions.example
uniqueExceeded.cfg
Attribution
0_Channel Comprehensive.cfg
0_Channel Comprehensive.cfg.off
1_Attribution Parameters.cfg
1_Attribution Parameters(GENERIC).cfg.off
2_Event Attribution of Marketing Tactic.cfg
3_First and Last for Conversion.cfg
4_Adjacency of Marketing Tactic.cfg
5_Latency Score of Marketing Tactic.cfg
6_Starter Player Close Marketing Tactic.cfg
7_Attribution Channel.cfg.off
8_Conversion Time.cfg
9_Pathing of Marketing Tactics.cfg
Campaign

Analyst Workspaces

Click the **Analyst Workspaces** tab to open workspaces prebuilt analysis utilizing the dimensions and metrics provided with the Attribution profile.

These workspaces are organized into four categories:

1. **Basic Reports** expose a single model within a workspace.
2. **Comparative Reports** extended the analyses by presenting multiple models within a single view.
3. **Investigation Reports** expands the reporting templates to present the attribution models in different formats. This section also introduces and exposes the position-based weighting ratios.
4. **Pathing Reports** provide visibility into the customer's marketing journey with multiple pathing visualizations to fully explore and express the process flows and interaction paths

The Analyst tab includes workspaces pre-configured with reports. For example, **First Attribution** lets you select from the **Campaign** table to see the **Revenue** attribution based on **Time**.

Select from the Campaign table to see the Revenue attribution by Time.

Press Ctrl+Alt and click on a dimension in the Time Dimensions panel to the Right, and Drag other Time Dimensions into the Paragraph to change the time frame.

First Attribution looks back on a time period window and gives credit to the first (tag) to a particular campaign

Expand the image to the right for an example →

Time Dimensions

Search: Day, Hour, Week, Month, Hour of Day, Day of Week, Today, Yesterday, This Week, Last Week, This Month, Last Month, Last 3 Weeks, Last 7 Days, Last 21 Days, Last 24 Hours, Last 48 Hours, Hours of Today, Days Ago, Weeks Ago, Months Ago, Last 4 Weeks

Campaign	First Attr Revenue	First Attr Orders
ems:123	\$0.00	0
pti:120	\$0.00	0
ems:126	\$0.00	0
soc:123	\$0.00	0
ems:101	\$0.00	0
sen:108	\$0.00	0
aff:105	\$0.00	0
ems:131	\$0.00	0
sen:128	\$0.00	0
ems:119	\$0.00	0
soc:124	\$0.00	0
soc:121	\$0.00	0

Pct of Attr Revenue 0.0%

0.0% 100.0%

50.0%

Deploying the Attribution Profile

The Attribution profile is an inherited, ready-to-drop-in profile. In combination with the Adobe SC profile and Analytics (SC/Insight) data feed, the profile can be deployed to quickly expose new attribution models across digital channels.

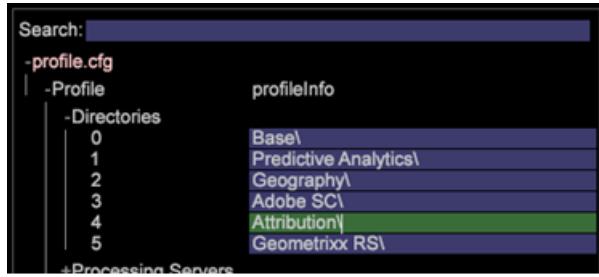
After saving the Attribution profile to the primary server, there are two additional steps necessary to integrate it into the current profile within the `Profile` directory: (1) Set up the `Profile.cfg` file, and (2) Declare the Required Fields.

Setting up `Profile.cfg` file

Like all profiles, the Attribution profile needs to be added to the `profile.cfg` file. Because the Attribution profile depends on the Adobe SC profile, the Adobe SC profile needs to be listed first in the configuration file before the Attribution profile.

 **Note:** *These steps will require a re-transformation of the dataset.*

1. Open the `profile.cfg` file in your custom profile folder. (Open in `server\Profiles\custom profile name\profile.cfg`.)
2. If the Attribution profile is not listed in the configuration file, add it to the list.



3. Make sure the **Attribution** string is listed below the **Adobe SC** profile string.
4. Save the updated `profile.cfg` file and then save it to server from the Profile Manager.

Declaring the Required Fields

The Attribution profile takes predefined fields and with a series of transformations exposes those fields in new and useful ways through extended dimensions. To provide the most immediate value the Attribution profile depends on fields available with the Adobe SC profile.

Default Variables	Field Name and Decoder Position (Adobe SC)
Campaign	x-campaign, #199
Marketing Channels	x-va_closer_detail, #162 x-va_instance_event, #163
Order event	x-order, #206 x-purchaseid, #200
Revenue	x-revenue, #205

Default Variables	Field Name and Decoder Position (Adobe SC)
Units	x-units, #204

1. Verify that these fields are declared in the Decoder Group used to define the Adobe Analytics data source. The default decoder group is provided under `Dataset\Log Processing\Decoding Instructions.cfg`.
2. Verify that these fields are declared in the **Fields** section of the `SC Fields.cfg` file. This file can be located under `Dataset\Log Processing\SC Fields.cfg`.

Attribution Additions and Troubleshooting

The Attribution profile added a configuration file, `0a_Marketing_Channels.cfg`, which copies the value of the `x-va_closer_detail` into a new field called `x-marketing-channel`, when the `x-va_instance_event` field matches "1". Both `x-va_closer_detail` and `x-va_instance_event` are decoded by default, and passed from decoding in the installed packages available when you update to version 6.2.

The `x-marketing-channel` field is then used in the Simple dimension called Marketing Channel.

 **Important:** *If you have altered your profiles by removing previously unused fields that are now being used, you will want to verify that the `x-va_closer_detail` and `x-va_instance_event` fields are being decoded and passed through for use.*

If fields are missing, then you will get a message in your detailed status:

`x-va_closer_detail` is not available

or

`x-va_instance_event` is not available

Attribution Models

Seven different attribution models are provided to use with the Attribution profile to help illustrate and quantify the customer-marketing journey.

First and Last model



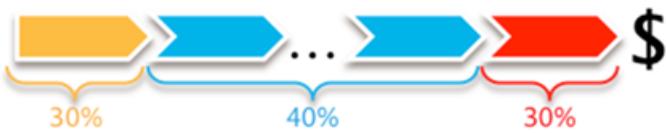
The first attribution models are the traditional **First** and **Last** touches. Understanding the first step into converting a sale or the last touch before checking out and buying a product provides an understanding of campaign types—for awareness, the First touch, and for call-to-action, the Last touch.

Even model



The view into the marketing engagement is expanded with the introduction of **Even**. Every qualifying marketing interaction is given an equal share of the subsequent order and revenue generated from the conversion.

Starter, Player, and Closer model



And moving beyond an equal allocation the **Starter, Player, & Closer** model provides a position based weighting scheme with adjustable weighting. The weights can be explored while performing analysis.

Consider this example: The starter (or first) gets 30 percent of the converted revenue, closer (or last) gets 30 percent, and all the players (those in-between) share an equal portion of the remaining 40 percent.

 *Note: It's fairly common to assign the allocation back to marketing interactions based on either revenue or occurrence of the order. These next two models attribute different characteristics to the marketing interactions to expose other dynamics of success.*

Adjacency model



The Adjacency model provides visibility into the marketing position away from the conversion, answering the question: Is the marketing channel typically the 1st (closest), 5th, or 10th marketing channel interaction away from success?

Latency model

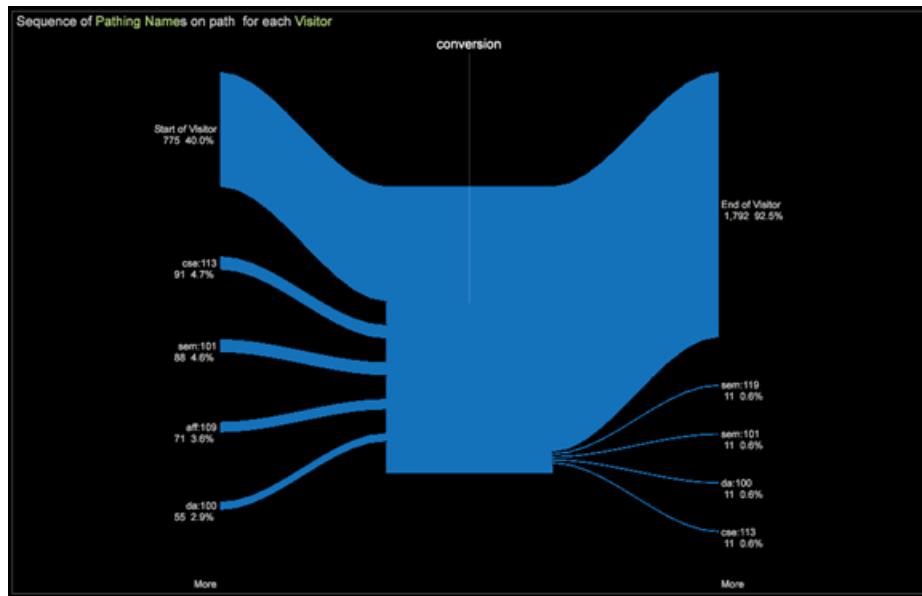


The **Latency** model helps describe the lag time between the interaction with the marketing channel and the occurrence of success. This is useful in presenting awareness versus call-to-action type campaigns and knowing which levers the business can pull to get a more timely response from a target audience. (A value of zero (0) days means the marketing interaction occurred the same day as the success.)

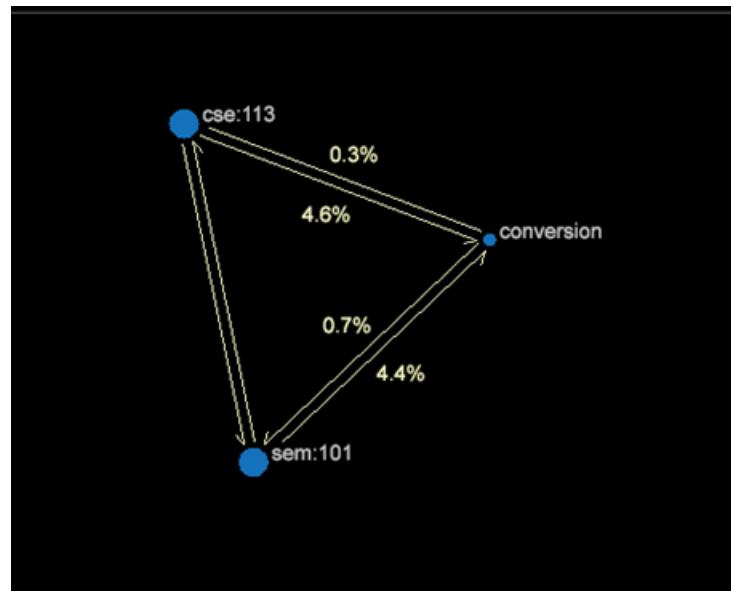
Pathing model

The Pathing model provides different approaches for exploring the customer's engagement with marketing and his or her successful conversion, establishing the relationships between marketing interactions within the customer journey. Explore the process maps to understand high-level flows between supporting marketing channels and success. Evaluate direct sequential marketing interactions with the path browser.

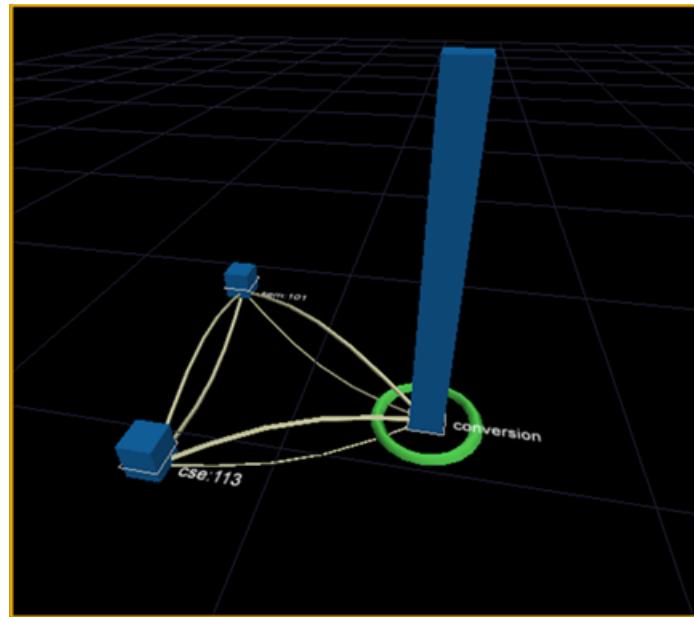
Path Browser visualization



2D Process Map visualization



3D Process Map visualization



3D Scatter Plots

A 3D Scatter Plot graphs the elements of a data dimension (such as Days or Referral Site) on a three-dimensional grid where the x, y, and z axes represent various metrics.

Like the [Scatter Plot 2D](#), this visualization is useful when trying to understand the relationship between large numbers of disparate items employing different metrics.

To employ the 3D Scatter Plot visualization:

1. Open a new workspace.

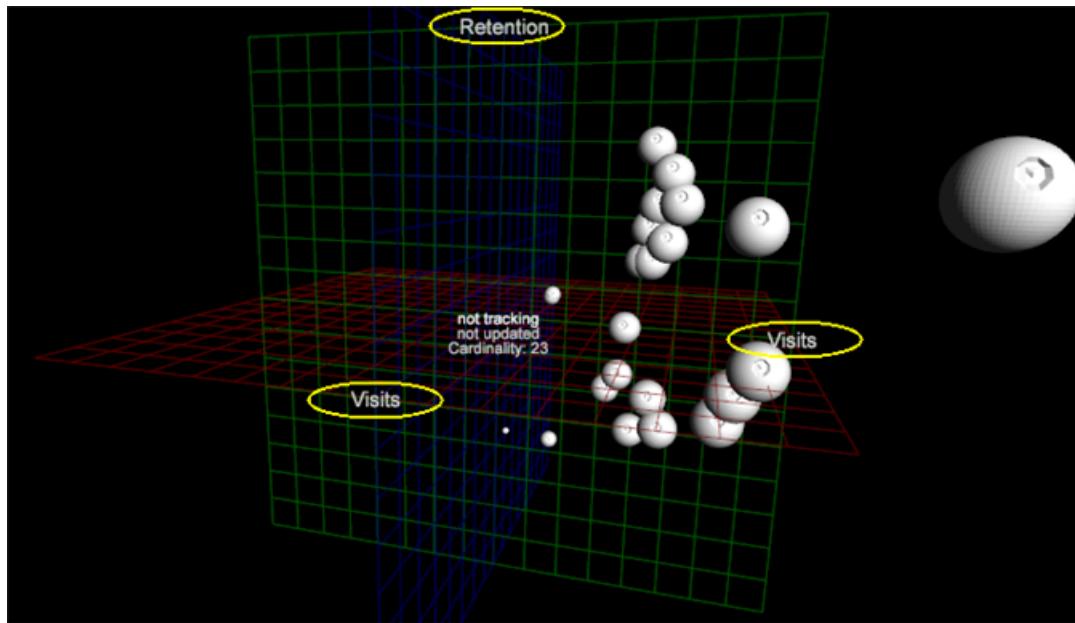
After opening a new workspace, you may need to click **Add > Temporarily Unlock**.

2. Right-click and select **Visualization > 3D Scatter Plot**.

A menu listing **Dimensions** will open.

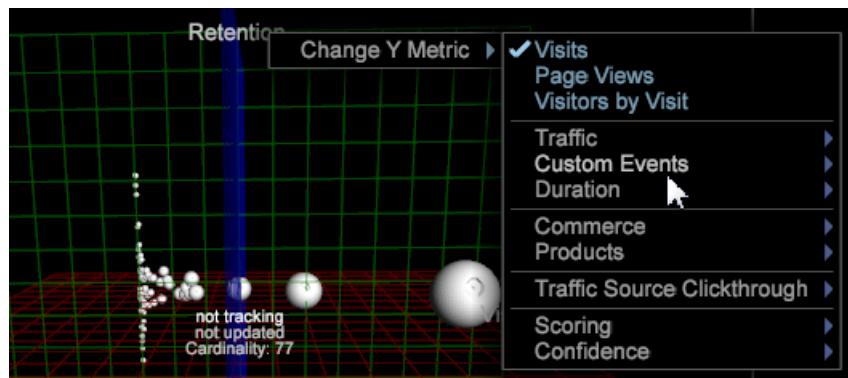
3. Select a dimension for the query.

The 3D Scatter Plot will open the default metrics for that dimension.



Selecting the **Days** menu displays the following 3D Scatter Plot with these default metrics on the following axes: **x=Visits**, **y=Retention**, and **z=Visits**.

4. Change metrics. Right-click on the metric label in the x, y, or z axis and select **Change Metric**. Then select a different metric for the selected axis.

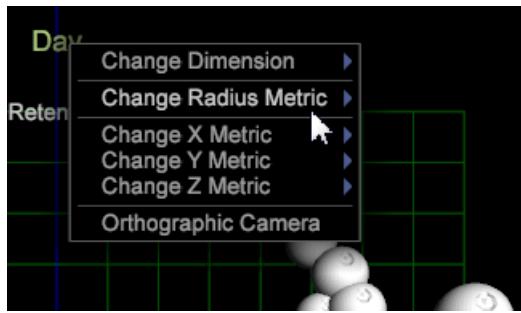


Important:

- Drag a metric to one of the three axis labels and drop it to change the selected axis to the dropped metric.
- Drag a metric anywhere else on the visualization and drop it to change the radius metric for that axis.
- Drag a dimension to anywhere on the visualization and drop it to change the dimension for the visualization.

5. Change the Radius Metric. Right-click the title at the top of the page (titled after the selected dimension) and select **Change Radius Metric**.

The radius metric defines the size of the plotted point based on the metric selection. The relative position of points does not change in the scatter plot, but the plotted point sizes within the visualization increase based on the metric value.



6. Employ the **Orthographic Camera**. This option lets you identify the plotted points in relation to their true perspective based on the radius metric to avoid three-dimensional distortion.

When the 3D Scatter Plot first appears, it displays in a three-dimensional rotating projection, which causes some distortion for points plotted nearer to the perspective, or virtual "camera." (The plots nearer to the camera show up much larger than the points rotating further away from the camera.)

To avoid this perspective distortion, you can select the **Orthographic Camera** option by right-clicking on the title and selecting from the menu. This allows you to represent the three-dimensional objects in two-dimensions. This renders the plotted points as flat and displays the points as relative to the radius metric, lessening the 3-dimensional offsets.

7. Select points from the scatter plot.

- **To remove a point or group of points:** Click the point.
- **To add another point or group of points to your selection:** **Ctrl + click** a point or **Ctrl + drag** across multiple points.
- **To remove a point or group of points from your selection:** **Shift + click** a point or **Shift + drag** across several points.

Analytics Reports

Analytic reports are provided for users of the Adobe SC profile. These data workbench reports—Page Views, Traffic, Unique Visitors, Referring Domain and other significant report types—are standard reports in Adobe Analytics.

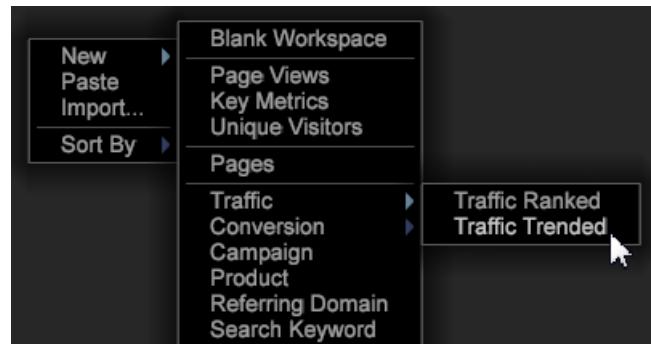
For Adobe Analytics' users, these templates allow users employing the Adobe SC profile (which uses the SC/Insight data feed) to view reports generated from Data Workbench using templates similar to the Adobe *Marketing Reports & Analytics* capability. Users can access these pre-configured reports using data workbench templates.



Note: This menu will only appear for those users who have implemented the Adobe SC profile.

To Open Reports

On the worktop, right-click and select **New** to view and open report templates.



The following are a list of Analytic reports:

Reports	Description
Page Views	A trended report that displays the number of times your website pages were viewed for the selected time period (hour, day, week, month, quarter, or year). This report allows you to track page views for each page on your site, as well as an aggregate of page views for your entire site.
Key Metrics	The Key Metrics Report lets you compare metrics to see whether they trend together. For example, as your page views increase, does your visitor count increase?
Unique Visitors	Shows you the number of unique visitors who accessed your site. Each visitor is counted once, regardless of how many times the person visits your website.
Pages	Ranks the pages on your site based on the pages that receive the most traffic. If your business question deals with quantitative data for pages, you can use this report to answer that question by adding the right metrics.
Traffic	Traffic reports give you in-depth insight into how visitors interact with your website.
Conversion	Provide comprehensive, accurate, and detailed analysis of customer activity. Metrics such as campaign management, sales cycle, customer fallout, and customer conversion let you measure e-commerce transactions, sources of sales, advertising effectiveness, customer loyalty, and more.
Campaign	Displays information about the effectiveness of your advertising efforts. You can see which types advertising efforts give you the most traffic and which of your employees is responsible for driving those efforts.
Product	Identifies how individual products and groups of products (categories) contribute to your various conversion metrics, such as Revenue or Checkouts.
Referring Domain	Shows the domains that referred the customers that most impacted your site's success metrics. Referrers fall into two main categories: Domains and URLs. Domains refer to the domain name, and appear as the base domain without the query string or subdirectories attached. URLs include the base domain name, as well as any query strings or subdirectories.
Search Keyword	Reports that display a breakdown of search keywords.

Data Workbench 6.1.1 Update

Data Workbench 6.1.1 updates OpenSSL in your system necessary to fix the "Heartbleed" vulnerability found in previous versions of OpenSSL. Certain Data Workbench versions (5.5.x, 6.0.x and 6.1.x) used a version of OpenSSL deemed vulnerable.

Managed users of Data Workbench have been updated to version 6.1.1, but if you have an on-premise implementation you will need to update.



Important: Because Data Workbench servers require authentication, it is important to understand that external attackers cannot exploit this vulnerability because they can't get past the initial handshake.

See [upgrading instructions](#) for detailed information about upgrading from previous versions to Data Workbench 6.1.1.

Updates for April MR 2014

Adobe Analytics will update and enhance its data feed powering Data Workbench to take advantage of the Master Marketing Profile within the Adobe Marketing Cloud. All Data Workbench users are required to be prepared to transition to this new data feed format by April 21, 2014.

The Master Marketing Profile provides a complete and fully actionable view of customers for use across the Adobe Marketing Cloud and third-party services. To start establishing the foundation for new features within Analytics, the new marketing cloud visitor identifier will be added to the data feed in this upcoming April MR release along with other enhancements and improvements. This new service is available to any customer using the Adobe Marketing Cloud.

Additional enhancements and bug fixes provided with this new data feed are listed below in this topic, as well as instructions for preparing your Data Workbench configuration.

Enhancements and Bug Fixes for the New Data Feed

- Addition of the Marketing Cloud Visitor ID.
- Addition of the Target Action field to support Target reporting and analysis within Analytics.
- Improved alignment with Report & Analytics by incorporating the `bot_id` value on the product row types.
- Reduction in size of merchandising eVars without the loss of integrity on the data values.
- Resolved an issue where some times hashed values would show up in merchandising eVars.
- Internal improvements within the process to continue to deliver better stability and performance.

Updating the Data Workbench Configuration

Changes to Data Workbench will ensure uninterrupted integration of the data feed after the transition. During your next scheduled reprocess update, the current Decoder Group within the Log Processing phase of the configuration. The team responsible for managing the Data Workbench architecture will be able to perform additional tasks to help expose and take advantage of the new marketing cloud visitor identifier.

Tasks to update Data Workbench

1. Locate the current Decoder Group. Typically, located in the `Dataset\Log Processing\Decoding Instructions.cfg` found within a Profile Manager.
2. Within the configuration file, right-click on the current decoder format and select Copy.
3. Right-click and paste a new entry below the current decoder format.
4. Expand the new decoder format and add two new field positions to the end of the list. These positions can be left empty if you aren't ready to use the new fields in the dataset, or define them as follows.
 - `x-mcvisid`
 - `x-tnt-action`

Decoding Instructions

```
Log Processing Include = LogProcessingInclude:  
Decoder Groups = vector: 1 items  
  0 = TextFileDecoderGroup:  
    Decoders = vector: 2 items  
      0 = DelimitedDecoder:  
        Delimiter = string: \t  
        Fields = vector: 389 items  
          0 = string: x-insight-row_type  
          1 = string: x-exclude_hit
```

```
10 = string: x-visit_num
100 = string: x-prop33
101 = string: x-prop34
102 = string: x-prop35
103 = string: x-prop36
104 = string: x-prop37
105 = string: x-prop38
106 = string: x-prop39
107 = string: x-prop40
108 = string: x-prop41
109 = string: x-prop42
11 = string: x-visit_page_num
110 = string: x-prop43
111 = string: x-prop44
112 = string: x-prop45
113 = string: x-prop46
114 = string: x-prop47
115 = string: x-prop48
116 = string: x-prop49
117 = string: x-prop50
118 = string: x-prop51
119 = string: x-prop52
12 = string: x-hitid_high
120 = string: x-prop53
121 = string: x-prop54
122 = string: x-prop55
123 = string: x-prop56
124 = string: x-prop57
125 = string: x-prop58
126 = string: x-prop59
127 = string: x-prop60
128 = string: x-prop61
129 = string: x-prop62
13 = string: x-hitid_low
130 = string: x-prop63
131 = string: x-prop64
132 = string: x-prop65
133 = string: x-prop66
134 = string: x-prop67
135 = string: x-prop68
136 = string: x-prop69
137 = string: x-prop70
138 = string: x-prop71
139 = string: x-prop72
14 = string: x-accept_language
140 = string: x-prop73
141 = string: x-prop74
142 = string: x-prop75
143 = string: cs(referrer)
144 = string: x-ref_domain
145 = string: x-ref_type
146 = string: x-resolution
147 = string: x-s_resolution
148 = string: x-search_engine
149 = string: x-search_page_num
15 = string: x-bot_type
150 = string: x-state
151 = string: x-transactionid
152 = string: x-truncated_hit
153 = string: x-ua_color
154 = string: x-ua_os
155 = string: x-ua_pixels
156 = string: x-uniques_exceeded
157 = string: cs(user-agent)
158 = string: x-user_server
159 = string: x-va_finder_id
16 = string: x-bot_id
160 = string: x-va_finder_detail
161 = string: x-va_closer_id
```

```
162 = string: x-va_closer_detail
163 = string: x-va_instance_event
164 = string: x-va_new_engagement
165 = string: x-zip
166 = string: x-last_hit_time_gmt
167 = string: x-first_hit_time_gmt
168 = string: x-visit_start_time_gmt
169 = string: x-last_purchase_time_gmt
17 = string: x-browser
170 = string: x-last_purchase_num
171 = string: x-first_hit_page_url
172 = string: x-first_hit_pagename
173 = string: x-visit_start_page_url
174 = string: x-visit_start_pagename
175 = string: x-first_hit_referrer
176 = string: x-visit_referrer
177 = string: x-visit_search_engine
178 = string: x-visit_keywords
179 = string: x-daily_visitor
18 = string: x-browser_height
180 = string: x-hourly_visitor
181 = string: x-monthly_visitor
182 = string: x-yearly_visitor
183 = string: x-weekly_visitor
184 = string: x-quarterly_visitor
185 = string: x-preloaded
186 = string: x-tnt
187 = string: x-survey
188 = string: x-mvvar1
189 = string: x-mvvar2
19 = string: x-browser_width
190 = string: x-mvvar3
191 = string: x-media
192 = string: x-page_event_media
193 = string: x-page_event_var3
194 = string: x-tnt_instances
195 = string: x-survey_instances
196 = string: x-mvvar1_instances
197 = string: x-mvvar2_instances
198 = string: x-mvvar3_instances
199 = string: x-campaign
2 = string: x-userid
20 = string: x-channel
200 = string: x-purchaseid
201 = string: x-product-num
202 = string: x-category
203 = string: x-product
204 = string: x-units
205 = string: x-revenue
206 = string: x-order
207 = string: x-cart_open
208 = string: x-cart_view
209 = string: x-checkout
21 = string: x-click_action
210 = string: x-cart_add
211 = string: x-cart_remove
212 = string: x-product_view
213 = string: x-evar1
214 = string: x-evar2
215 = string: x-evar3
216 = string: x-evar4
217 = string: x-evar5
218 = string: x-evar6
219 = string: x-evar7
22 = string: x-click_action_type
220 = string: x-evar8
221 = string: x-evar9
222 = string: x-evar10
223 = string: x-evar11
```

```
224 = string: x-evar12
225 = string: x-evar13
226 = string: x-evar14
227 = string: x-evar15
228 = string: x-evar16
229 = string: x-evar17
23 = string: x-click_context
230 = string: x-evar18
231 = string: x-evar19
232 = string: x-evar20
233 = string: x-evar21
234 = string: x-evar22
235 = string: x-evar23
236 = string: x-evar24
237 = string: x-evar25
238 = string: x-evar26
239 = string: x-evar27
24 = string: x-click_context_type
240 = string: x-evar28
241 = string: x-evar29
242 = string: x-evar30
243 = string: x-evar31
244 = string: x-evar32
245 = string: x-evar33
246 = string: x-evar34
247 = string: x-evar35
248 = string: x-evar36
249 = string: x-evar37
25 = string: x-click_source_id
250 = string: x-evar38
251 = string: x-evar39
252 = string: x-evar40
253 = string: x-evar41
254 = string: x-evar42
255 = string: x-evar43
256 = string: x-evar44
257 = string: x-evar45
258 = string: x-evar46
259 = string: x-evar47
26 = string: x-click_tag
260 = string: x-evar48
261 = string: x-evar49
262 = string: x-evar50
263 = string: x-evar51
264 = string: x-evar52
265 = string: x-evar53
266 = string: x-evar54
267 = string: x-evar55
268 = string: x-evar56
269 = string: x-evar57
27 = string: x-code_ver
270 = string: x-evar58
271 = string: x-evar59
272 = string: x-evar60
273 = string: x-evar61
274 = string: x-evar62
275 = string: x-evar63
276 = string: x-evar64
277 = string: x-evar65
278 = string: x-evar66
279 = string: x-evar67
28 = string: x-c_color
280 = string: x-evar68
281 = string: x-evar69
282 = string: x-evar70
283 = string: x-evar71
284 = string: x-evar72
285 = string: x-evar73
286 = string: x-evar74
```

```
287 = string: x-evar75
288 = string: x-cust1
289 = string: x-cust2
29 = string: x-color
290 = string: x-cust3
291 = string: x-cust4
292 = string: x-cust5
293 = string: x-cust6
294 = string: x-cust7
295 = string: x-cust8
296 = string: x-cust9
297 = string: x-cust10
298 = string: x-cust11
299 = string: x-cust12
3 = string: x-service
30 = string: x-cookies
300 = string: x-cust13
301 = string: x-cust14
302 = string: x-cust15
303 = string: x-cust16
304 = string: x-cust17
305 = string: x-cust18
306 = string: x-cust19
307 = string: x-cust20
308 = string: x-cust21
309 = string: x-cust22
31 = string: x-ct_connect_type
310 = string: x-cust23
311 = string: x-cust24
312 = string: x-cust25
313 = string: x-cust26
314 = string: x-cust27
315 = string: x-cust28
316 = string: x-cust29
317 = string: x-cust30
318 = string: x-cust31
319 = string: x-cust32
32 = string: x-connection_type
320 = string: x-cust33
321 = string: x-cust34
322 = string: x-cust35
323 = string: x-cust36
324 = string: x-cust37
325 = string: x-cust38
326 = string: x-cust39
327 = string: x-cust40
328 = string: x-cust41
329 = string: x-cust42
33 = string: x-country
330 = string: x-cust43
331 = string: x-cust44
332 = string: x-cust45
333 = string: x-cust46
334 = string: x-cust47
335 = string: x-cust48
336 = string: x-cust49
337 = string: x-cust50
338 = string: x-cust51
339 = string: x-cust52
34 = string: x-currency
340 = string: x-cust53
341 = string: x-cust54
342 = string: x-cust55
343 = string: x-cust56
344 = string: x-cust57
345 = string: x-cust58
346 = string: x-cust59
347 = string: x-cust60
348 = string: x-cust61
```

```
349 = string: x-cust62
35 = string: x-curr_rate
350 = string: x-cust63
351 = string: x-cust64
352 = string: x-cust65
353 = string: x-cust66
354 = string: x-cust67
355 = string: x-cust68
356 = string: x-cust69
357 = string: x-cust70
358 = string: x-cust71
359 = string: x-cust72
36 = string: x-curr_factor
360 = string: x-cust73
361 = string: x-cust74
362 = string: x-cust75
363 = string: x-cust76
364 = string: x-cust77
365 = string: x-cust78
366 = string: x-cust79
367 = string: x-cust80
368 = string: x-cust81
369 = string: x-cust82
37 = string: x-domain
370 = string: x-cust83
371 = string: x-cust84
372 = string: x-cust85
373 = string: x-cust86
374 = string: x-cust87
375 = string: x-cust88
376 = string: x-cust89
377 = string: x-cust90
378 = string: x-cust91
379 = string: x-cust92
38 = string: x-geo_city
380 = string: x-cust93
381 = string: x-cust94
382 = string: x-cust95
383 = string: x-cust96
384 = string: x-cust97
385 = string: x-cust98
386 = string: x-cust99
387 = string: x-cust100
388 = string: x-ecom_additional_data
39 = string: x-geo_country
4 = string: x-page_event
40 = string: x-geo_dma
41 = string: x-geo_region
42 = string: x-geo_zip
43 = string: x-hier1
44 = string: x-hier2
45 = string: x-hier3
46 = string: x-hier4
47 = string: x-hier5
48 = string: x-homepage
49 = string: c-ip
5 = string: x-hit_source
50 = string: x-j_jscript
51 = string: x-javascript
52 = string: x-java_enabled
53 = string: x-keywords
54 = string: x-language
55 = string: x-mobile_id
56 = string: x-new_visit
57 = string: x-os
58 = string: x-p_plugins
59 = string: x-plugins
6 = string: x-hit_time_gmt
60 = string: x-page_event_var1
```

```
61 = string: x-page_event_var2
62 = string: x-page_type
63 = string: cs-uri
64 = string: x-pagename
65 = string: x-paid_search
66 = string: x-partner_plugins
67 = string: x-persistent_cookie
68 = string: x-prop1
69 = string: x-prop2
7 = string: x-date_time
70 = string: x-prop3
71 = string: x-prop4
72 = string: x-prop5
73 = string: x-prop6
74 = string: x-prop7
75 = string: x-prop8
76 = string: x-prop9
77 = string: x-prop10
78 = string: x-prop11
79 = string: x-prop12
8 = string: x-visid_high
80 = string: x-prop13
81 = string: x-prop14
82 = string: x-prop15
83 = string: x-prop16
84 = string: x-prop17
85 = string: x-prop18
86 = string: x-prop19
87 = string: x-prop20
88 = string: x-prop21
89 = string: x-prop22
9 = string: x-visid_low
90 = string: x-prop23
91 = string: x-prop24
92 = string: x-prop25
93 = string: x-prop26
94 = string: x-prop27
95 = string: x-prop28
96 = string: x-prop29
97 = string: x-prop30
98 = string: x-prop31
99 = string: x-prop32
1 = DelimitedDecoder:
Delimiter = string: \t
Fields = vector: 391 items
0 = string: x-insight-row_type
1 = string: x-exclude_hit
10 = string: x-visit_num
100 = string: x-prop33
101 = string: x-prop34
102 = string: x-prop35
103 = string: x-prop36
104 = string: x-prop37
105 = string: x-prop38
106 = string: x-prop39
107 = string: x-prop40
108 = string: x-prop41
109 = string: x-prop42
11 = string: x-visit_page_num
110 = string: x-prop43
111 = string: x-prop44
112 = string: x-prop45
113 = string: x-prop46
114 = string: x-prop47
115 = string: x-prop48
116 = string: x-prop49
117 = string: x-prop50
118 = string: x-prop51
119 = string: x-prop52
```

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12 = string: x-hitid_high
120 = string: x-prop53
121 = string: x-prop54
122 = string: x-prop55
123 = string: x-prop56
124 = string: x-prop57
125 = string: x-prop58
126 = string: x-prop59
127 = string: x-prop60
128 = string: x-prop61
129 = string: x-prop62
13 = string: x-hitid_low
130 = string: x-prop63
131 = string: x-prop64
132 = string: x-prop65
133 = string: x-prop66
134 = string: x-prop67
135 = string: x-prop68
136 = string: x-prop69
137 = string: x-prop70
138 = string: x-prop71
139 = string: x-prop72
14 = string: x-accept_language
140 = string: x-prop73
141 = string: x-prop74
142 = string: x-prop75
143 = string: cs(referrer)
144 = string: x-ref_domain
145 = string: x-ref_type
146 = string: x-resolution
147 = string: x-s_resolution
148 = string: x-search_engine
149 = string: x-search_page_num
15 = string: x-bot_type
150 = string: x-state
151 = string: x-transactionid
152 = string: x-truncated_hit
153 = string: x-ua_color
154 = string: x-ua_os
155 = string: x-ua_pixels
156 = string: x-uniques_exceeded
157 = string: cs(user-agent)
158 = string: x-user_server
159 = string: x-va_finder_id
16 = string: x-bot_id
160 = string: x-va_finder_detail
161 = string: x-va_closer_id
162 = string: x-va_closer_detail
163 = string: x-va_instance_event
164 = string: x-va_new_engagement
165 = string: x-zip
166 = string: x-last_hit_time_gmt
167 = string: x-first_hit_time_gmt
168 = string: x-visit_start_time_gmt
169 = string: x-last_purchase_time_gmt
17 = string: x-browser
170 = string: x-last_purchase_num
171 = string: x-first_hit_page_url
172 = string: x-first_hit_pagename
173 = string: x-visit_start_page_url
174 = string: x-visit_start_pagename
175 = string: x-first_hit_referrer
176 = string: x-visit_referrer
177 = string: x-visit_search_engine
178 = string: x-visit_keywords
179 = string: x-daily_visitor
18 = string: x-browser_height
180 = string: x-hourly_visitor
181 = string: x-monthly_visitor
```

```
182 = string: x-yearly_visitor
183 = string: x-weekly_visitor
184 = string: x-quarterly_visitor
185 = string: x-preloaded
186 = string: x-tnt
187 = string: x-survey
188 = string: x-mvvar1
189 = string: x-mvvar2
19 = string: x-browser_width
190 = string: x-mvvar3
191 = string: x-media
192 = string: x-page_event_media
193 = string: x-page_event_var3
194 = string: x-tnt_instances
195 = string: x-survey_instances
196 = string: x-mvvar1_instances
197 = string: x-mvvar2_instances
198 = string: x-mvvar3_instances
199 = string: x-campaign
2 = string: x-userid
20 = string: x-channel
200 = string: x-purchaseid
201 = string: x-product-num
202 = string: x-category
203 = string: x-product
204 = string: x-units
205 = string: x-revenue
206 = string: x-order
207 = string: x-cart_open
208 = string: x-cart_view
209 = string: x-checkout
21 = string: x-click_action
210 = string: x-cart_add
211 = string: x-cart_remove
212 = string: x-product_view
213 = string: x-evar1
214 = string: x-evar2
215 = string: x-evar3
216 = string: x-evar4
217 = string: x-evar5
218 = string: x-evar6
219 = string: x-evar7
22 = string: x-click_action_type
220 = string: x-evar8
221 = string: x-evar9
222 = string: x-evar10
223 = string: x-evar11
224 = string: x-evar12
225 = string: x-evar13
226 = string: x-evar14
227 = string: x-evar15
228 = string: x-evar16
229 = string: x-evar17
23 = string: x-click_context
230 = string: x-evar18
231 = string: x-evar19
232 = string: x-evar20
233 = string: x-evar21
234 = string: x-evar22
235 = string: x-evar23
236 = string: x-evar24
237 = string: x-evar25
238 = string: x-evar26
239 = string: x-evar27
24 = string: x-click_context_type
240 = string: x-evar28
241 = string: x-evar29
242 = string: x-evar30
243 = string: x-evar31
```

```
244 = string: x-evar32
245 = string: x-evar33
246 = string: x-evar34
247 = string: x-evar35
248 = string: x-evar36
249 = string: x-evar37
25 = string: x-click_source_id
250 = string: x-evar38
251 = string: x-evar39
252 = string: x-evar40
253 = string: x-evar41
254 = string: x-evar42
255 = string: x-evar43
256 = string: x-evar44
257 = string: x-evar45
258 = string: x-evar46
259 = string: x-evar47
26 = string: x-click_tag
260 = string: x-evar48
261 = string: x-evar49
262 = string: x-evar50
263 = string: x-evar51
264 = string: x-evar52
265 = string: x-evar53
266 = string: x-evar54
267 = string: x-evar55
268 = string: x-evar56
269 = string: x-evar57
27 = string: x-code_ver
270 = string: x-evar58
271 = string: x-evar59
272 = string: x-evar60
273 = string: x-evar61
274 = string: x-evar62
275 = string: x-evar63
276 = string: x-evar64
277 = string: x-evar65
278 = string: x-evar66
279 = string: x-evar67
28 = string: x-c_color
280 = string: x-evar68
281 = string: x-evar69
282 = string: x-evar70
283 = string: x-evar71
284 = string: x-evar72
285 = string: x-evar73
286 = string: x-evar74
287 = string: x-evar75
288 = string: x-cust1
289 = string: x-cust2
29 = string: x-color
290 = string: x-cust3
291 = string: x-cust4
292 = string: x-cust5
293 = string: x-cust6
294 = string: x-cust7
295 = string: x-cust8
296 = string: x-cust9
297 = string: x-cust10
298 = string: x-cust11
299 = string: x-cust12
3 = string: x-service
30 = string: x-cookies
300 = string: x-cust13
301 = string: x-cust14
302 = string: x-cust15
303 = string: x-cust16
304 = string: x-cust17
305 = string: x-cust18
```

```
306 = string: x-cust19
307 = string: x-cust20
308 = string: x-cust21
309 = string: x-cust22
31 = string: x-ct_connect_type
310 = string: x-cust23
311 = string: x-cust24
312 = string: x-cust25
313 = string: x-cust26
314 = string: x-cust27
315 = string: x-cust28
316 = string: x-cust29
317 = string: x-cust30
318 = string: x-cust31
319 = string: x-cust32
32 = string: x-connection_type
320 = string: x-cust33
321 = string: x-cust34
322 = string: x-cust35
323 = string: x-cust36
324 = string: x-cust37
325 = string: x-cust38
326 = string: x-cust39
327 = string: x-cust40
328 = string: x-cust41
329 = string: x-cust42
33 = string: x-country
330 = string: x-cust43
331 = string: x-cust44
332 = string: x-cust45
333 = string: x-cust46
334 = string: x-cust47
335 = string: x-cust48
336 = string: x-cust49
337 = string: x-cust50
338 = string: x-cust51
339 = string: x-cust52
34 = string: x-currency
340 = string: x-cust53
341 = string: x-cust54
342 = string: x-cust55
343 = string: x-cust56
344 = string: x-cust57
345 = string: x-cust58
346 = string: x-cust59
347 = string: x-cust60
348 = string: x-cust61
349 = string: x-cust62
35 = string: x-curr_rate
350 = string: x-cust63
351 = string: x-cust64
352 = string: x-cust65
353 = string: x-cust66
354 = string: x-cust67
355 = string: x-cust68
356 = string: x-cust69
357 = string: x-cust70
358 = string: x-cust71
359 = string: x-cust72
36 = string: x-curr_factor
360 = string: x-cust73
361 = string: x-cust74
362 = string: x-cust75
363 = string: x-cust76
364 = string: x-cust77
365 = string: x-cust78
366 = string: x-cust79
367 = string: x-cust80
368 = string: x-cust81
```

```
369 = string: x-cust82
37 = string: x-domain
370 = string: x-cust83
371 = string: x-cust84
372 = string: x-cust85
373 = string: x-cust86
374 = string: x-cust87
375 = string: x-cust88
376 = string: x-cust89
377 = string: x-cust90
378 = string: x-cust91
379 = string: x-cust92
38 = string: x-geo_city
380 = string: x-cust93
381 = string: x-cust94
382 = string: x-cust95
383 = string: x-cust96
384 = string: x-cust97
385 = string: x-cust98
386 = string: x-cust99
387 = string: x-cust100
388 = string: x-ecom_additional_data
389 = string: x-mcvisid
39 = string: x-geo_country
390 = string: x-tnt-action
4 = string: x-page_event
40 = string: x-geo_dma
41 = string: x-geo_region
42 = string: x-geo_zip
43 = string: x-hier1
44 = string: x-hier2
45 = string: x-hier3
46 = string: x-hier4
47 = string: x-hier5
48 = string: x-homepage
49 = string: c-ip
5 = string: x-hit_source
50 = string: x-j_jscript
51 = string: x-javascript
52 = string: x-java_enabled
53 = string: x-keywords
54 = string: x-language
55 = string: x-mobile_id
56 = string: x-new_visit
57 = string: x-os
58 = string: x-p_plugins
59 = string: x-plugins
6 = string: x-hit_time_gmt
60 = string: x-page_event_var1
61 = string: x-page_event_var2
62 = string: x-page_type
63 = string: cs-uri
64 = string: x-pagename
65 = string: x-paid_search
66 = string: x-partner_plugins
67 = string: x-persistent_cookie
68 = string: x-prop1
69 = string: x-prop2
7 = string: x-date_time
70 = string: x-prop3
71 = string: x-prop4
72 = string: x-prop5
73 = string: x-prop6
74 = string: x-prop7
75 = string: x-prop8
76 = string: x-prop9
77 = string: x-prop10
78 = string: x-prop11
79 = string: x-prop12
```

```

8 = string: x-visid_high
80 = string: x-prop13
81 = string: x-prop14
82 = string: x-prop15
83 = string: x-prop16
84 = string: x-prop17
85 = string: x-prop18
86 = string: x-prop19
87 = string: x-prop20
88 = string: x-prop21
89 = string: x-prop22
9 = string: x-visid_low
90 = string: x-prop23
91 = string: x-prop24
92 = string: x-prop25
93 = string: x-prop26
94 = string: x-prop27
95 = string: x-prop28
96 = string: x-prop29
97 = string: x-prop30
98 = string: x-prop31
99 = string: x-prop32
Name = string: Adobe SC decoder
Fields = vector: 0 items
Log Entry Condition = AndCondition: 0 items
Parameters = vector: 0 items
Stage = string: Default
Transformations = vector: 0 items

```

Data Workbench 6.1 Release Notes

Data Workbench 6.1 release notes include new features, upgrade requirements, bug fixes, and known issues.

To view previous features and fixes based for each past release, see the [release note archives](#).

New Features

Data Workbench 6.1 includes these new features:

Features	Description
64-bit Windows upgrade	The data workbench server, report server, and client components are upgraded to run only on 64-bit Windows operating systems.
Propensity Scoring	<p>Scoring your audience lets you identify customer loyalty and statistically perceive who is likely to convert a sale or interact with a story or campaign. Propensity scoring now includes these visualizations to view models and show the changing correlation of selected metrics.</p> <ul style="list-style-type: none"> The Model Viewer examines a logistic regression model generated with Propensity Scoring, displaying the coefficient weights of each input variable (including the constant term) and their statistical error range. Lift and Gain charts are used to evaluate the potential increase of a scored data model. The Confusion Matrix gives four counts by the combination of Actual Positive (AP), Actual Negative (AN), Predicted Positive (PP), and Predicted Negative (PN). Starting with v6.1, you now have a Save option to save propensity scores based on two types: dimensions, or dimensions and metrics.

Features	Description
	<ul style="list-style-type: none"> You can now click Ctrl-Alt and drag and drop to add elements in Propensity Scoring and the <i>Cluster Builder</i>. Previously to add table elements, you had to drag from the table to the Elements box.
<i>Data workbench now in Chinese</i>	<p>Data workbench now supports Simplified Chinese for the client application.</p> <p>Data workbench also supports the <i>Input Method Editor (IME)</i> as a secondary text entry process for international languages.</p>
<i>Math Functions</i>	<p>You can now add Mathematical functions to metrics, math transformations, and worksheet cells to further calculate datasets.</p>
<i>Statistical Callouts</i>	<p>Tables now offer a statistics summary call-out for metric columns. The call-out can display the mean, standard deviation, minimum and maximum values, variance, and total count for the column. It can be factored in to any selection and evaluation.</p>
<i>Correlation Matrix filter</i>	<p>The Correlation Matrix has been updated with a Binary Filter to let you constrain values for one or both of the correlated metrics, allowing you to better focus your comparison.</p> <p>Also, you can now add Dimension elements from a Dimension table by clicking Ctrl + Alt and dragging elements to the matrix column or row to be evaluated.</p>
<i>Hide Fallout label in funnel visualization</i>	<p>Toggle between displaying and hiding fallout labels in a Funnel visualization by right-clicking the title and selecting Hide Fallout.</p>
<i>Tables sorted</i> alphabetically or by ordinals	<p>From a Dimension table, you can sort elements alphabetically or by ordinals using the new arrow in the title of the column. The # character will display when a column is sorted by ordinals.</p>
<i>New keyboard shortcuts</i>	<p>Additional shortcut keys have been added for adding and editing workspaces and configuration files.</p>

Known Issues

- When importing a workspace, an error message is displayed even though the import was successful.

Workaround: Click OK to ignore the error. The workspace is imported successfully.

Simplified Chinese Localization Issues

- The dialog title and message displayed after clicking "Submit" when setting the target in the Scoring visualization are unreadable.

Workaround: None.

- When using word wrap in the Worksheet visualization, localized words are not being wrapped correctly. Extra junk characters are being added to the string.

Workaround: None

- Unable to launch `Insight.exe` if the installation directory is named with non-English characters.

Workaround: Keep default names or rename using only English characters in the folder path to launch executables.

Data Workbench 6.1 features

Data Workbench 6.1 includes the following features.

Propensity Scoring

Propensity scoring lets you define customers based on their possibility of a successful conversion or completion of a specified event. It allows you to maximize the potential impact of efforts before executing a process or directing a campaign.

The Value of Propensity Scoring

Propensity scoring lets you perform data discovery to identify hidden behaviors or patterns that exists across your data. Specifically, propensity scoring helps you identify clusters of similar customers using more focused and objective means rather than simple segmentation or filtering. In addition, propensity scoring lets you set up predictive capabilities to identify behavior for your company's high-value customer.

Once you have identified the high-value audience, you can then engage them for the greatest effect. For example, if you are Business to Business company, you may have sales call leads that allow you to then score the leads and identify their likelihood to convert offline. Because every lead increases costs, creating an incentive to identify prospective customers with the highest likelihood of converting a sale is the most effective and the least expensive way to focus your resources.

Propensity scoring provides the ability to identify those factors that are most predictive of a particular score or to increase the likelihood of an event taking place, but it can also be applied to answer specific questions: Will the customer convert? Will the customer respond to an email? Will the customer repurchase? Propensity scoring lets you answer these questions and identify visitors with an inclination for action that can then be set up and scored.

In addition, you can use filters to define a subset of visitors to be scored using the optional **Training Filter** feature. If no filter is applied, then all visitors are targeted for scoring.

Features of the Propensity Scoring Visualization

To open the Propensity Scoring Visualization, click **Add > Visualization > Predictive Analytics > Scoring > Propensity Score**.



The Propensity Scoring Visualization includes these features accessible from its toolbar:

Toolbar Feature	Description
Go	Click to run the scoring process after setting up parameters.
Reset	Clear all settings in the visualization.
Load	Loads a previously created ScoreDim that allows you to change and/or rebuild the scoring model.
Save	Save the Propensity scoring visualization as a Dim file to be accessed and opened as needed.

Toolbar Feature	Description
Submit	Submit scoring task for server-side processing.
Options	Set the Training Filter to limit the subset of visitors. The default filter is Train on Everyone , but you can change it by making workspace selections or building a filter using the Filter Editor .
Set Target	Set the Dependent Variable.
Metric	Add Metrics as Independent Variables.
Elements	Drag Dimension elements using the <Ctrl> + <Alt> keys from Dimension tables.

See also:

1. The [Gain and Lift charts](#). These views can be opened from a complete scoring model or from Add Visualization> Predictive Analytics > Scoring.
2. The [Model Viewer](#). These views can be opened from a complete scoring model or from Add Visualization> Predictive Analytics > Scoring.
3. The [Complex Filter Description](#) feature.

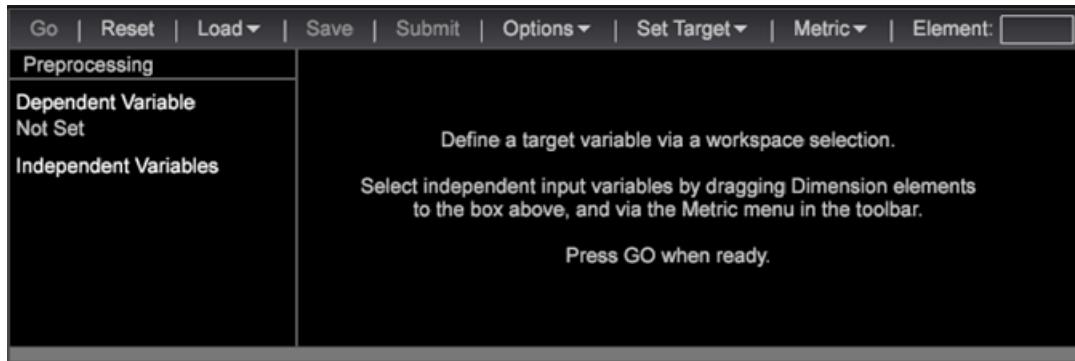
Using the Propensity Scoring Visualization

- **Define one or more filters to define the visitor population for scoring.** This optional **Training Filter** lets you target visitors based on selected criteria. If no training filter is applied, then all visitors are targeted for scoring. If the Training Filter is set, then the scoring result is meaningful to the defined visitor population, although each visitor will still be given a score.
- **Identify the positive visitors.** To define the dependent variable to specify a target filter identifying the positive visitors that match the desired outcome. This can be as simple as Revenue > \$10, or a much more complex filter.
- **The Target filter is not allowed to be the same as the Training filter.** Logically, the Target Filter should be an addition to the Training Filter, resulting in a positive subset of the visitor population to be scored.
- **Select variables of interest (independent variables) as inputs to the Propensity Scoring algorithm.** These can be Metrics or individual elements of a Dimension. Propensity Scoring will start preprocessing just as in [Visitor Clustering](#). The system begins capturing a certain amount of samples that match the definition of the previously set training filter (if any). Currently, the sample size is set as 10% of scoring population (defined by training filter), with a minimum of 20,000 and maximum of 100,000, and is bound to the scoring population size.
- A Score Dimension has elements ranging from 0% to 100% that determines the likelihood of the visitors matching the Target variable.

Setting up Propensity Scoring

Follow these steps to use the Propensity Scoring visualization.

1. Open a new workspace and click **Add > Visualization > Predictive Analytics > Scoring > Propensity Score**.



2. Set the **Target** (the dependent variable).

Set the dependent variable by selecting:

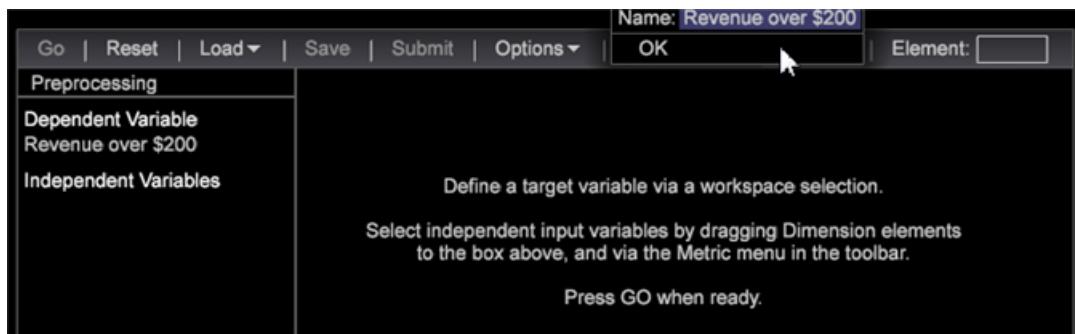
- **Dimension elements:** Right-click in the workspace and select **Table**. Then select a Dimension elements as your dependent variable.

OR

- **Filter Editor.** Click **Add > Visualization > Filter Editor** to open the Filter Editor visualization.



After selecting a Dimension element or Filter as the dependent variable, click **Set Target**, enter a name to describe the dependent variable. Then click **OK** (and make sure the filter box is highlighted) to set the Target.



The name you give the target is the dependent variable that will appear in the left pane.

3. Add independent variables.

Add the independent variables using Metrics or Dimension Elements.



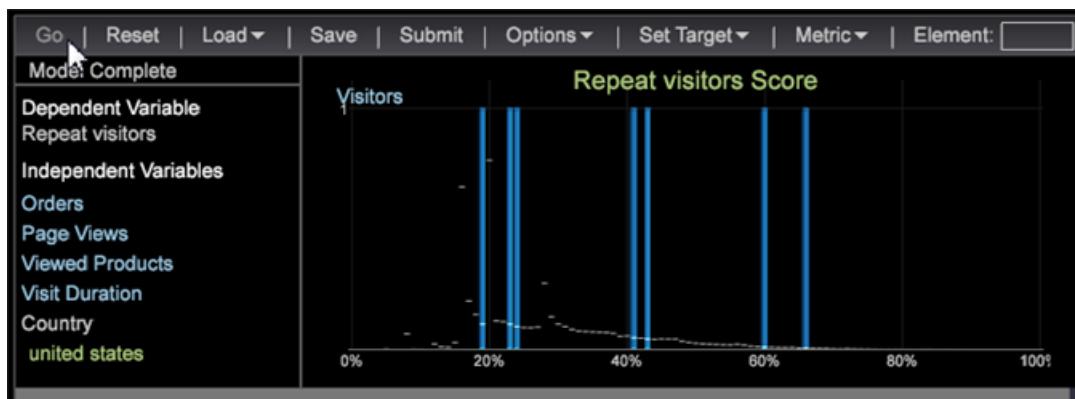
- **Metrics.** From the Propensity Scoring toolbar, select a metric from the **Metrics** menu.
- **Dimension elements:** Right-click in the workspace and select **Table**. Select one or more Dimension elements and drag to the left column under **Independent Variables** or to the **Element** box using the <Ctrl> + <Alt> keys.

4. Set **Training Filter**. You can define the set of visitors that you want to score by clicking **Options > Set Training Filter** from the Propensity Scoring toolbar. This will provide a subset of data built using only the visitors that you want to score. For example, who visited in the last month, visitors who reside in Australia, or visitors who viewed specific products.

The default filter is **Train on Everyone**, but you can change it by activating **Dimension Elements** in a table or building a filter using the **Filter Editor**.

After selecting a Dimension element or building a filter and while activated, click **Options > Set Training Filter**, enter a name to describe the filter, and then click **OK**.

5. Once you have identified all your inputs, press **Go**.



The scoring process will begin by passing over the data multiple times. It will then display the results as bar charts over a percentage line.

6. Save Propensity Score.

Starting with 6.1, you now have an option when using the Save Propensity Score:

- Dimension
- Dimension and Metric

You can end up with two saved files, both a dimension and a defined metric.



Note: If you submit the Propensity Score for processing you will get a dimension only.

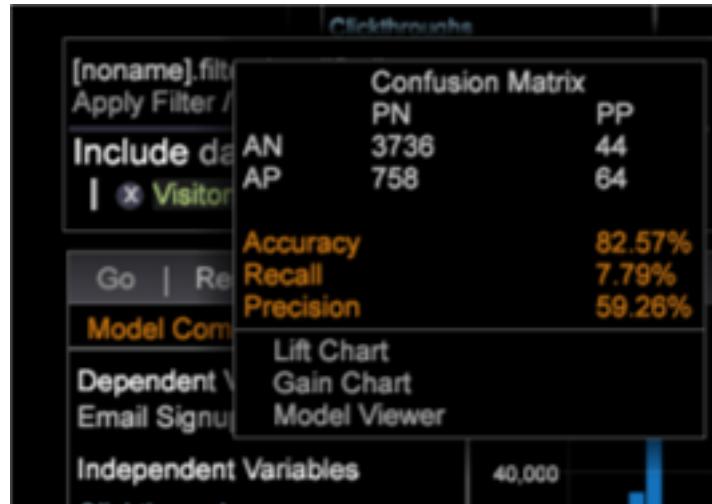
The derived metric is the associated average score metric.

7. Check for accuracy.

The system will display **Model Complete** and generate a scoring model when the process is complete.

Right-clicking on **Model Complete** will identify the accuracy of the scoring model as defined by the system. Values ranging from 0 percent to 100 percent will identify the likelihood of the visitors matching the **Target** variable.

The [Confusion Matrix](#) gives four counts by the combination of Actual Positive (AP), Actual Negative (AN), Predicted Positive (PP), and Predicted Negative (PN). These numbers are obtained by applying the resulted scoring model to the 20% withheld testing data of which we know the true answer. If the score is greater than 50%, it is predicted as a positive case (matching the defined event).



Accuracy	Indicates how accurate the model is by identifying the correct predictions over all predictions. $(TP + TN)/(TP + FP + TN + FN)$
Recall	Identifies the ability to re-identify the scoring model. $TP / (TP + FN)$
Precision	Identifies the level of discrepancy. $TP / (TP + FP)$

8. Open a [Lift or Gain Chart](#), or the [Model Viewer](#).

Right-click on the **Model Complete** visualization and select **Lift Chart**, **Gain Chart**, or **Model Viewer**.

Calculating Propensity Scoring

The statistical calculations for Propensity Scoring are defined.

Conceptually, the score calculated for each visitor is an estimated probability that the specified event (defined by the target filter) might happen, resulting in a score value range from 0 to 100 percent. The scoring procedure uses existing samples as training data to find the relationship between the event probability and the selected independent variables of interest.

Mathematically, such relationships are reflected in each quantitative value associated for each independent variable. Those values are called model coefficients. ScoreDim currently uses the Iteratively Reweighted Least Squares (IRLS) algorithm to estimate the model coefficients. IRLS goes through the samples multiple times until the difference of coefficients between current pass

and the previous pass is less than 1.0e-6, at which point it is called **converged**. However, depending on the data, IRLS may not be able to reach convergence.

In such case, the model training iteration will terminate when

- the coefficient difference gets larger instead of smaller,
- 1,000 passes have been reached, or
- a mathematical error prevents continuing iteration.

If IRLS doesn't converge, a backup algorithm called Stochastic Gradient Decent (SGD) will be used. SGD will also go through the training samples multiple times. But unlike IRLS, the SGD model coefficients are controlled so that the difference between iteration will always decrease in an exponential manner. Similarly, SGD will terminate when the coefficient difference falls below 1.0e-6 or 100,000 passes have been reached. The failure of IRLS and engagement of SGD will be recorded in trace log.

For both algorithms, not all samples go into model training. Eighty percent are currently used to train the model. After the model is trained, the remaining twenty percent samples will be used to assess the model strength in terms of Accuracy, Recall, and Precision that is calculated from the confusion matrix. The closer to 100%, the better the scoring model.

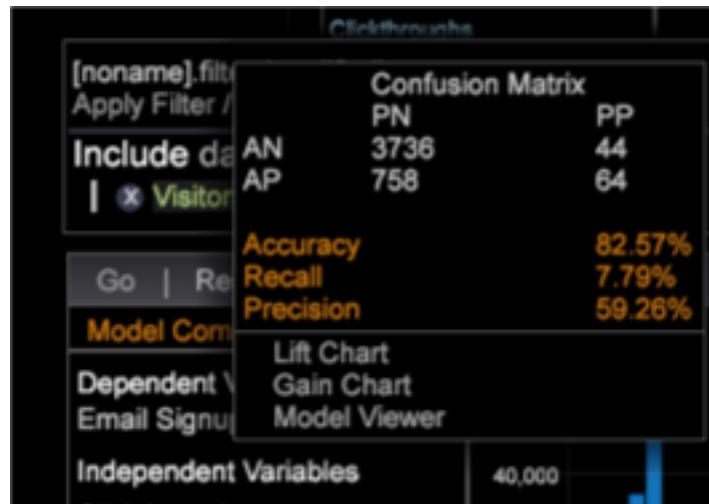
Propensity Gain and Lift Charts

The Lift and Gain charts offer visualizations for evaluating the potential performance of a scored model to evaluate performance over defined portions of the audience.

Gain and lift charts are visualizations built to evaluate the potential performance of the scored model. These charts evaluate performance over each portion of the population.

To Open a Lift or Gain chart

1. Select Add Visualization > Predictive Analytics > Scoring.
2. Hover over **Model Complete** of a saved score.



About Lift and Gain Charts

The Lift and Gain Charts are useful visual tools for measuring the value of a predictive model. Both charts consist of a lift curve (green) and a baseline (pink). For the **Gain Chart**, the distance between the lift curve and the baseline represents how much you can improve performance in responses (or the "gain") from using the predictive mode. The gain is realized by prioritizing and targeting the prospects (customers/visitors) who are most likely to convert, rather than marketing to customers/visitors at random. In this way, you can quantify the expected value of using the predictive model to choose which prospects to contact.

Similar to the Gain Chart, the **Lift Chart** shows how much more likely you are to receive positive responses than if you contacted prospects at random. You want the distance between the lift curve and the baseline to be as large as possible, representing larger expected gains from using the predictive model to contact customers. Mathematically, the gain and lift charts are defined as follows:

- **Gain** = (Expected Response using Predictive Model to Contact Prospects) / (Expected Response from Randomly Contacting Prospects)
- **Lift** = (Expected Response among a Specific Group Size of Prospects identified using the Predictive Model) / (Expected Response among the same Specific Group Size of Prospects identified Randomly)

Example of Lift and Gain Charts

For example, consider the example of a retailer who wants to launch an email re-marketing campaign to sell yoga pants. Historically, the analyst expects an average response rate of 20 percent based upon past email re-marketing campaigns similar to this one. While the analyst has nearly 5 million customers in its email database, the business only wants to market to those customers that are most likely to respond to the email and purchase. In this way, the company will maximize the ROI of the campaign while ensuring that they don't unnecessarily send emails to uninterested customers. Given an expected response rate of 20 percent, the marketer and analyst expect that approximately 1 million customers are likely to respond and purchase. Rather than randomly guessing which of those customers will be among the 20 percent responses, the analyst wants to be smart about predicting which of the one million prospects (among the database of 5 million customers) are most likely to respond.

Using Adobe's Audience Scoring capability, the analyst defines success as a prospect clicks on an email and purchases yoga pants (the dependent variable). After selecting the independent variables (based upon experience and knowledge gained from analyzing data correlations and audience clustering among other analyses), each prospect is scored on their likelihood of positively responding the email re-marketing campaign (clicking on the email and purchasing yoga pants). The analyst opens the resulting Gain and Lift charts based upon the predictive model.

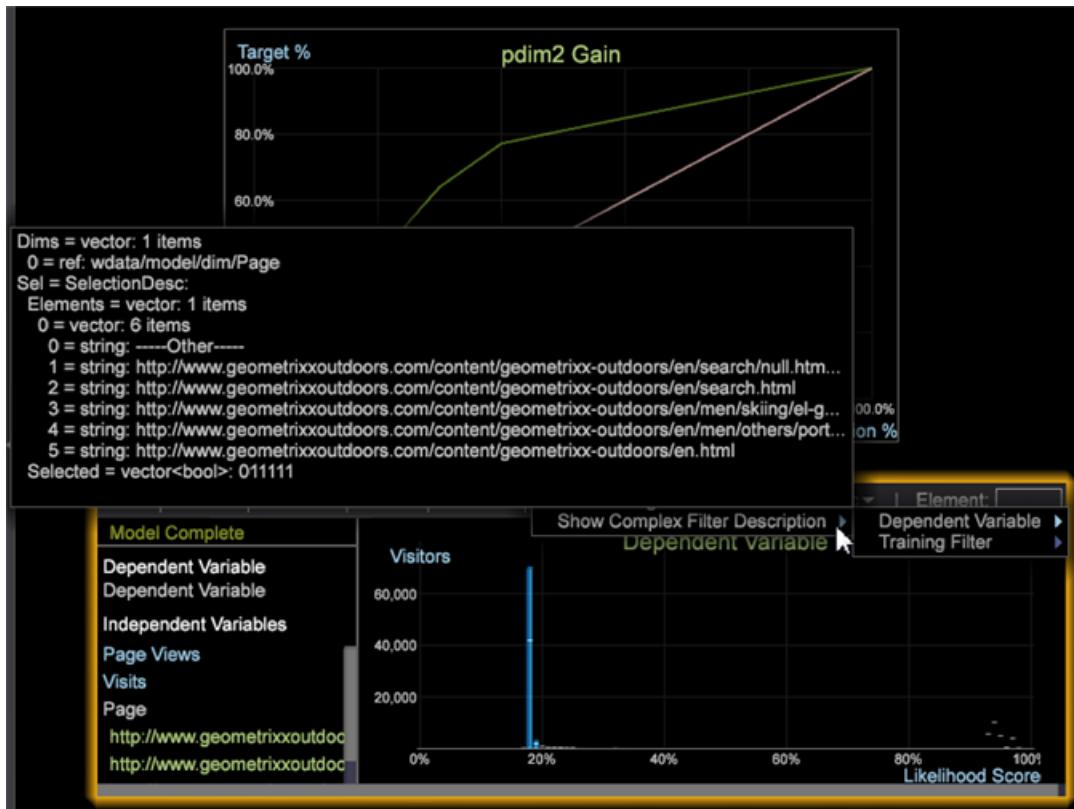
The y-axis shows the percentage of the cumulative expected positive responses. In our example, we expect a total of 1 million positive responses. A value of 20% on the y-axis corresponds to 20% of the 1 million expected positive responses, or 200,000 positive responses. The x-axis shows the percentage of prospective customers contacted. In our example, the x-axis represents a fraction of the 5 million customers in the email database. The baseline (Pink) is the overall response rate - if you contact X% of prospects then you will receive X% of the total positive responses. Using the predictive model, the lift curve (green) shows the percentage of positive responses obtained (y-axis) by contacting a given percentage of prospects (x-axis).

The Lift chart plots the expected lift as a result of using the predictive model to determine the top one million prospects most likely to purchase yoga pants after receiving and clicking on the email. For contacting 20 percent of randomly selected prospects using no predictive model, you should expect to get 20 percent of responders. However, using the predictive model to identify the top 20 percent of prospects most likely to respond, you expect to get 50% of responders. The y-value of the lift curve at 20 percent is $50/20 = 2.5$. The lift chart shows how much more likely you are to receive respondents than if you contact a random sample of prospects. For example, by contacting only 20 percent of prospects based on the predictive model you will reach 2.5 times as many respondents as compared to having not used any predictive model.

Complex Filter Description

You can add a Show Complex Filter Description for Dependent Variables and for the Training Filter.

To **Show the Complex Filter Description**, from the scoring dialog select Options > Show Complex Filter Description.



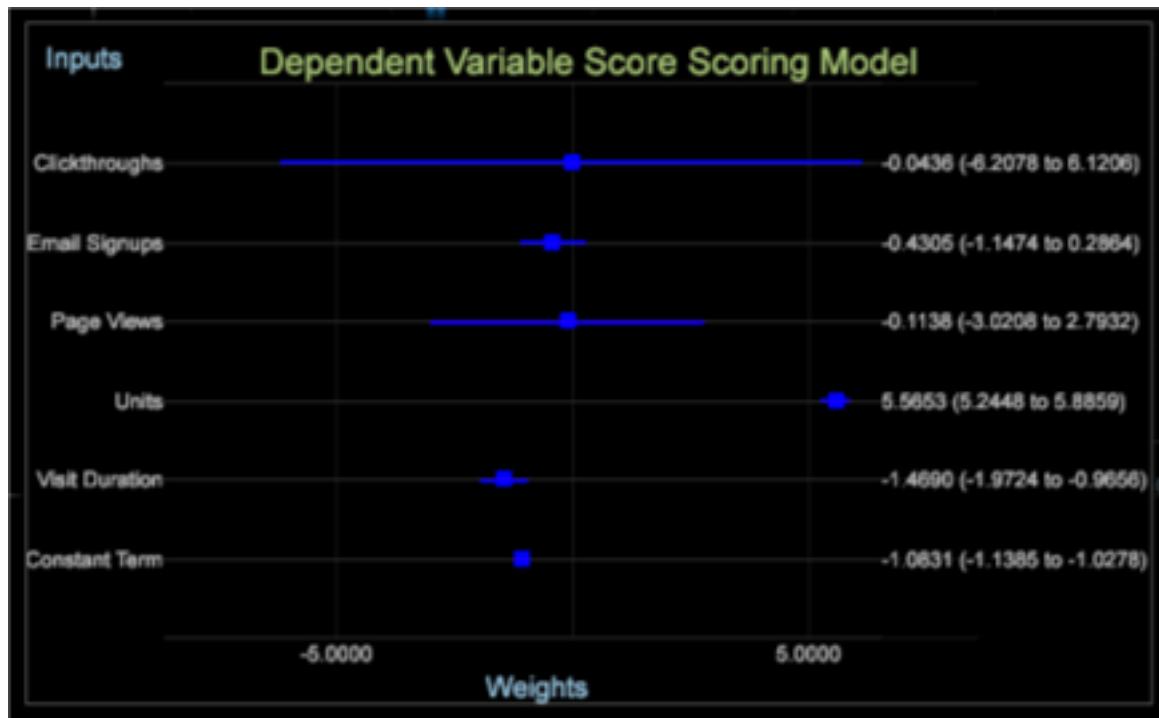
Model Viewer

A model viewer lets you generate a logistic regression model using the Propensity Scoring feature.

The Model Viewer displays the coefficient weights of each input variable (including the constant term) and their statistical error range. Input variables showing a high absolute coefficient and small margin of error are the most significant predictors in the model.

To Open a Model Viewer chart

1. Select Add Visualization > Predictive Analytics > Scoring.
2. Hover over Model Complete of a saved score.



The input variables with a coefficient ≥ 1 are positive influences on the propensity model. The coefficients that are < 1 are negative influences on the propensity model. The range defined within the parentheses is the error, and indicates the consistency of the input variable across the successful population.

Simplified Chinese localization

The data workbench client application now supports Simplified Chinese.

To install Simplified Chinese:

Before configuring `Insight.exe` and supporting files, you must exit the client application.

1. Create a shortcut that passes in the command-line setting to the `insight.exe` file.

```
Insight.exe -zh-cn
```

2. Configure `Insight.cfg` to support single and double-byte font characters.

Data workbench currently supports both English and Simplified Chinese. You can select fonts to support both of these languages:

```
Fonts = vector: 2 items
0 = string: SimSun
1 = string: Arial
```

3. Restart `Insight.exe`.

Input Method Editor

Data workbench now supports the Input Method Editor (IME) as a secondary text entry process for international languages.

IMEs allow you to enter international characters using a variety of methods suited for your local language. Data workbench provides an input dialog box that allows you to open and use your desired IME for text fields.

 **Note:** For the data workbench 6.1 release, only the virtual Simplified Chinese keyboard will be supported. Inputting other languages through the IME could result in unexpected behavior.

Using an IME

To use the floating IME text input feature:

1. Click **Alt + Space** for any text input area.
2. Enter values using your system's IME.
3. Close the input dialog by selecting the **Enter** key or clicking the **OK** button.

The dialog will disappear and the characters will then appear in the selected field.

Updating the Insight.cfg file

To employ the IME, you must update the `Insight.cfg` file with this setting:

```
Localized IME = bool: true
```

If this setting does not exist in the configuration file, then pressing **Alt + Space** will not engage the IME feature.

Starting Insight in another language: To better support localized assets like a splash screen and to support multiple languages in the future, data workbench requires command-line arguments identifying the language to load. The default language is English.

Starting data workbench in Chinese requires you to invoke `Insight.exe` with the `"-zh-cn"` argument:

```
Insight.exe -zh-cn
```

(These command line arguments are not case sensitive.)

Syntax for Math Functions

Data workbench now allows you to employ additional mathematical calculations.

Statistical calculations can be used evaluate and display in Metric editor visualizations, worksheet data, and for statistical callouts.

Calculation	Function	Input
absolute	<code>abs()</code>	Math transformation, Metric editor and Worksheet cell
arccosine	<code>acos()</code>	Math transformation, Metric editor and Worksheet cell
arcsine	<code>asin()</code>	Math transformation, Metric editor and Worksheet cell
arctangent	<code>atan()</code>	Math transformation, Metric editor and Worksheet cell
cosine	<code>cos()</code>	Math transformation, Metric editor and Worksheet cell
exponential	<code>exp()</code>	Math transformation, Metric editor and Worksheet cell
logarithm	<code>log()</code>	Math transformation, Metric editor and Worksheet cell
maximum	<code>max()</code>	Math transformation and Statistics callout
minimum	<code>min()</code>	Math transformation and Statistics callout
ln (natural logarithm)	<code>ln()</code>	Math transformation, Metric editor and Worksheet cell
sine	<code>sin()</code>	Math transformation, Metric editor and Worksheet cell
tangent	<code>tan()</code>	Math transformation, Metric editor and Worksheet cell

Statistical Callouts

Statistical callouts measure meaningful relationships to identify hidden opportunities and variables of interest for more advanced data mining capabilities in audience clustering and visitor response scoring.

Statistical callouts expand the algorithms so that more types of data can be correlated, such as binomial variables (yes/no, 0/1, or purchaser/non-purchaser) correlated with countable metrics (visits, orders, or downloads).

To add statistical callouts:

1. In a table, right-click the metric header.
2. Select **Statistics** and then select or clear the checkmarks for each required setting. All in the Display Callout are selected as the default setting.



The callout can return statistical values factored into the dataset columns.

Calculation	Description
Count	Returns the number of rows in a dataset.
Maximum	Identifies the maximum Metric value across all elements of the dimension.
Minimum	Identifies the minimum Metric value across all elements of the dimension.
Mean	The mean is the arithmetic average of the Metric values of elements in the Dimension, calculated by the total sum divided by the count (sum/count).
Standard Deviation	The standard deviation shows how much variation exists from the expected mean. A lower standard deviation shows the data points close to the mean. A higher standard deviation shows that the data points are spread across a large range of values.
Total	Returns the total sum of the Metric values.
Variance	A measure of the variance of the Metric values from the Metric mean for that dimension. It is equal to the square of the standard deviation.

New Keyboard Shortcuts

New shortcut keys are available for workspaces and configuration files.

Keyboard shortcuts from the worktop thumbnail view

Keys	Action
Ctrl + N	Opens a new workspace. If you are limited to creating a single type of blank workspace, then the workspace will open immediately. If you have rights to open multiple types of workspaces based on your implementation, then Ctrl + N displays a menu allowing you to choose the type of workspace to be created.
Ctrl + O	Imports a workspace.

Keyboard shortcuts within a workspace

Keys	Action
Ctrl + P	Prints a workspace.
Ctrl + W	Closes a workspace without saving.
Ctrl + S	Saves a workspace.

Sorting Table Columns

Sort table columns alphabetically or by ordinals.

To better select elements in a Dimension table, you can order the first column alphabetically or by ordinals by selecting the **Sort** menu option.

The # character will display when a column is sorted by ordinals (the default).

Select Sort Option

To change sorting options between ordinal and alphabet, right-click and select **Sort**. Click the arrow to reverse the order.

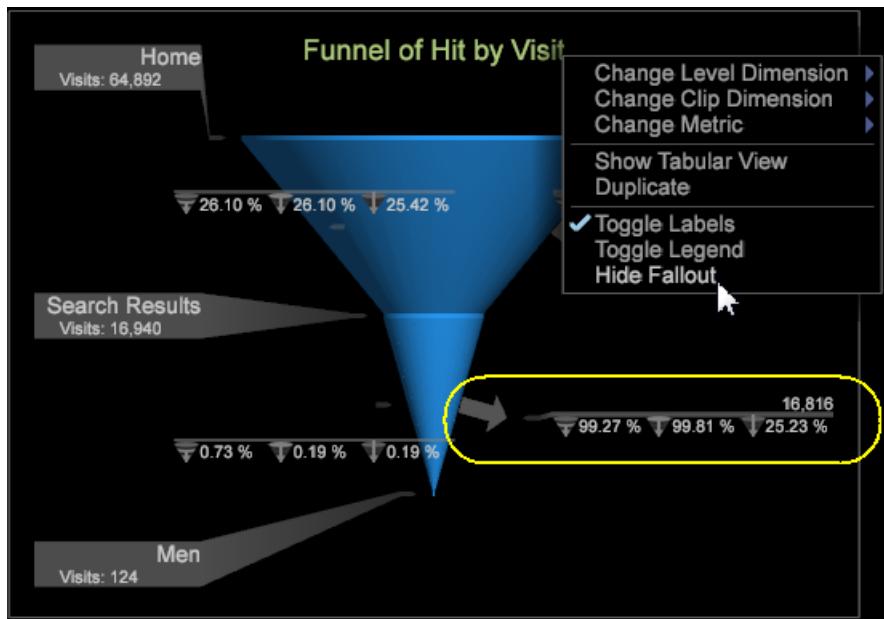


 **Note:** You can sort other columns by ordinal by clicking the name of the column.

Hide Fallout Labels in Funnel

Toggle to open fallout labels in a Funnel visualization.

The Funnel visualization identifies where a customer abandons a marketing campaign or diverts from a defined conversion path while interacting with your website or cross-channel campaign. The left side of the Funnel visualization displays the results of a visit or visitors, while the right side displays the "Fallout" of those who abandon a specified path.



When in a **Funnel** visualization, you can right-click the title and select **Hide Fallout** from the menu to hide the fallout labels.

Data Workbench 5.5 to 6.1 Upgrade

Follow these steps to update to data workbench v6.1 from your Insight v5.5x installation.

Step 1: Server Upgrade

Step 2: Report Server Upgrade

Step 3: Client Upgrade

 **Important:** The server, report server, and client components are upgraded to run on 64-bit Windows operating systems.

Server Upgrade

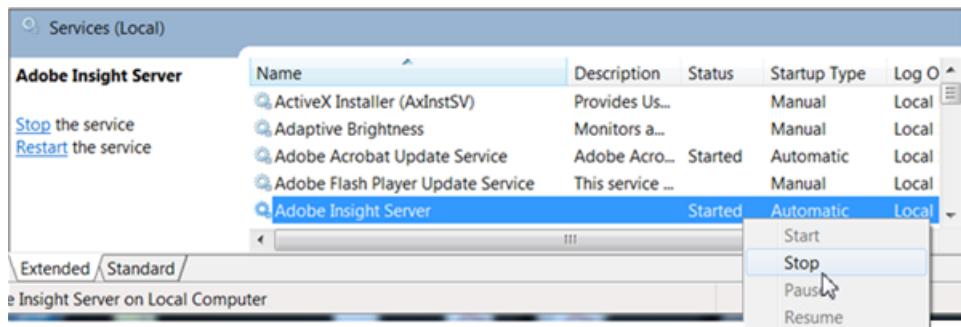
Follow these steps to update the **Server v6.1** components:

1. Using the **Software and Docs** profile, open the **Start Here** workspace and download all needed server packages to a local folder.
 - Download **Server Packages \ v6.1** zip folders and extract all files.

The **Server** package includes **Lookup** and **Profile** folders with the **Base** and **Transform** lookup files to add and replace to update the server.

- Download new **Profiles** folders.
- Download updated **Lookup** folders.
- Download the **Report Server \ v6.1** package.
- Download additional **Sensor**, **Documentation**, and **Dashboard** files as needed for your system.

2. Stop the **Adobe Insight Server** service.



3. From the downloaded **Server** package:

- Replace the **Server\Bin** folder to update the **InsightServer64.exe** and supporting files.
- Replace the **Server\Profiles** folder. You can overwrite all files.
- Update the **Server\Lookups** folder. You will want to add the newly downloaded files to the custom files already located in the folder.
- Replace the **Server\Software** folder to update **Insight.exe** and **ReportServer.exe**
- Update the **Server\Scripts** folder to update **TnTSend.exe**.

4. If you employ **DeviceAtlas**, then you will need to *update the bundle* located in the **Server\Lookups** folder.

5. Set **Directories** in the **Profile.cfg** file to ensure that the vector is updated to reflect the number of items for each profile.

For example, to enable the **Predictive Analytics** profile you will need to update this setting.

```
Directories = vector: 5 items
0 = string: Base\\
1 = string: Geography\\
2 = string: Predictive Analytics\\
3 = string: Adobe SC\\
4 = string: Profile Name\\
```

6. Configure and save the **PAServer.cfg** file to upgrade the Predictive Analytics feature.

If you want to submit Predictive Analytics jobs to the servers, then you will need to configure the **Server > Predictive Analytics > Dataset > PAServer.cfg** file to manage server-side clustering submissions.

The custom profile should inherit the settings from the Predictive Analytics configuration profile, allowing you to configure and save the **PAServer.cfg** based on your site's implementation.

7. Define the **Log Source ID**.

The **Recording of Rows per Log Source** was added in **v6.04** and defined in the custom profile's **Log Processing.cfg** file by adding a uniquely named **Log Source ID**.

```
Log Processing.cfg
Log Source ID = string: <Name your ID Here>
```

If you do not have the Log Source ID defined, then you will get the following error:

```
Missing Log Source ID in log processing.cfg.  
Log Source ID must be defined for all log sources.
```

8. Because the `EventMessages.dll` has been updated, it is required that you unregister and then register the **Adobe Insight Server** across the cluster.
 - `InsightServer64.exe /unregserver`
 - `InsightServer64.exe /regserver`
9. Start the **Adobe Insight Server** service across the cluster.

The server installation is now complete.

Report Server Upgrade

 **Important:** Before upgrading to **Report Server v6.1**, you must first upgrade to **Server v6.1**.

1. Using the **Software and Docs** profile, download **v6.1** from the **Report Server** package to a local folder.
2. Copy **Report Server 6.1** from the downloaded package and replace the profile packages.

 **Note:** The `Insight.zbin` file in the `install` folder is a backup file used for localization, and must be present in the `install` directory. This file or other `.zbin` files will be used depending on the command-line settings passed when starting up.

3. (optional) Modify the report server configuration file to support double-byte characters.

Data workbench currently supports English (-en-us) and Chinese (-zh-cn). You need to set a font to support single and double-byte characters:

```
Report Server.cfg - Add Fonts  
Fonts = vector: 2 items  
0 = string: SimSun  
1 = string: Arial
```

The Windows operating system must also have the listed fonts installed.

4. Configure Report Server v6.1.
 - a. Stop the **Adobe Insight Report Server** service.
 - b. Launch a command prompt as an "Administrator".
 - c. Navigate to the Report Server `install` folder.
 - d. Delete the Report Server service using the following command:

```
ReportServer.exe /unregserver
```

5. Start the service based on the language settings:

```
ReportServer.exe -RegServer -Locale -en-us (English)  
ReportServer.exe -RegServer -Locale -zh-cn (Simplified Chinese)
```

6. To verify that Report Server is running with the correct settings, open up **Windows Service Manager** and right-click **Adobe Insight Report Server - Properties**. The path to the executable will display the updated command-line settings.

The report server installation is now complete.

Client Upgrade

 **Important:** Before upgrading to **Client v6.1**, the administrator must first upgrade to **Server v6.1**.

1. Launch `Insight.exe` but DO NOT connect to any profiles.
2. Edit the `Insight.cfg` file to not update software automatically.

```
Update Software = bool: false
```

3. Connect to **Software and Docs** profile (softdocs).
4. Download `Software\Insight Client\v6.10`.
5. (optional) Modify `insight.cfg` to support double-byte characters.

Data workbench currently supports both English and Simplified Chinese. Select fonts to support both of these languages:

```
Fonts = vector: 2 items
0 = string: SimSun
1 = string: Arial
```

6. Exit out of the client.
7. Copy the files in the downloaded **v6.1** client package to the `Install` folder.

 **Note:** The `Insight.zbin` file in the `install` folder is a backup file used for localization, and must be present in the `install` directory. This file or other `.zbin` files will be used depending on the command-line settings passed when starting up.

For example, to launch Simplified Chinese, create a shortcut that passes in the command-line setting.

```
Insight.exe -zh-cn
```

If you want to launch in English (default), then no command-line change is necessary.

8. Launch `Insight.exe` for English or the shortcut that you created for another language.
9. Connect to your profile and allow the client to synchronize with the server.
10. (optional) To employ the IME, make these changes to the `Insight.cfg` file:

```
Localized IME = bool: true
```

The Input Method Editor (IME) allows you to input international characters.

11. (optional) Edit the `Insight.cfg` file to automatically update software:

```
Update Software = bool: true
```

See instructions for implementing the IME.

12. Restart again after the profile synchronization to employ the most recent `.zbin` file.

The client installation is now complete.

Data Workbench 6.0 to 6.1 Upgrade

Follow these steps to update to data workbench v6.1 from your data workbench v6.0x installation.

Step 1: Server upgrade

Step 2: Report Server upgrade

Step 3: Client upgrade

 **Important:** The server, report server, and client components are upgraded to run on 64-bit Windows operating systems.

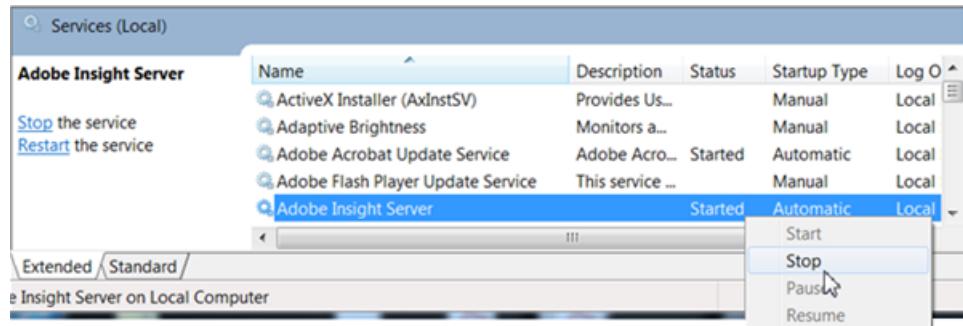
Server Upgrade

Follow these steps to update the **Server v6.1** components:

1. Using the **Software and Docs** profile, open the **Start Here** workspace and download all needed server packages to a local folder.
 - Download **Server Packages \ v6.1** zip folders and extract all files.

The Server package includes **Lookup** and **Profile** folders with **Base** and **Transform** profiles to update the server.

 - Download the **Profiles** folders.
 - Download the **Lookup** folders.
 - Download the **Report Server \ v6.1** package.
 - Download additional **Sensor**, **Documentation**, and **Dashboard** files as needed for your system.
2. Stop the **Adobe Insight Server** service.



3. From the downloaded **Server** package:
 - a. Replace the **Server\Bin** folder to update the **InsightServer64.exe** and supporting files.
 - b. Replace the **Server\Profiles** folder. You can overwrite all files.
 - c. Update the **Server\Lookups** folder. You will want to add the newly downloaded files to the custom files already located in the folder.
 - d. Replace the **Server\Software** folder to update **Insight.exe** and **ReportServer.exe**
 - e. Update the **Server\Scripts** folder to update **TnTSend.exe**.
4. If you employ **DeviceAtlas**, then you will need to *update the bundle* located in the **Server\Lookups** folder.
5. Configure the **Profile.cfg** file to ensure that the vector is updated to reflect the number of items for each profile.

For example, to enable the **Predictive Analytics** profile you will need to update this setting.

```
Directories = vector: 5 items
 0 = string: Base\\
 1 = string: Geography\\
 2 = string: Predictive Analytics\\
 3 = string: Adobe SC\\
 4 = string: Profile Name\\
```

6. Configure and save the **PAServer.cfg** file for the Predictive Analytics feature.

If you want to submit Predictive Analytics jobs to the servers, then you will need to configure the **Server > Predictive Analytics > Dataset > PAServer.cfg** file to manage server-side clustering submissions.

The custom profile should inherit the settings from the Predictive Analytics configuration profile, allowing you to configure and save the **PAServer.cfg** file based on your site's implementation.

7. Define the **Log Source ID**.

The **Recording of Rows per Log Source** was added in **v6.04** and defined in the custom profile's `Log Processing.cfg` file by adding a uniquely named **Log Source ID**.

```
Log Processing.cfg
  Log Source ID = string: <Name your ID Here>
```

If you do not have the Log Source ID defined, then you will get the following error:

```
Missing Log Source ID in log processing.cfg.
Log Source ID must be defined for all log sources.
```

- Because the `EventMessages.dll` has been updated, it is required that you unregister and then register the **Adobe Insight Server** across the cluster.

- `InsightServer64.exe /unregserver`
- `InsightServer64.exe /regserver`

- Start the **Adobe Insight Server** service across the cluster.

The server installation is now complete.

Report Server Upgrade



Important: Before upgrading to **Report Server v6.1**, you must first upgrade to **Server v6.1**.

- Using the **Software and Docs** profile, download **v6.1** from the **Report Server** package to a local folder.
- Copy **Report Server 6.1** from the downloaded package and replace the profile packages.



Note: The `Insight.zbin` file in the `install` folder is a backup file used for localization, and must be present in the `install` directory. This file or other `.zbin` files will be used depending on the command-line settings passed when starting up.

- (optional) Data workbench currently supports English (-en-us) and Chinese (-zh-cn). You need to set a font to support single and double-byte characters:

```
Report Server.cfg - Add Fonts
  Fonts = vector: 2 items
  0 = string: SimSun
  1 = string: Arial
```

The Windows operating system must also have the listed fonts installed.

- Configure Report Server v6.1 for localization.

- Stop the **Adobe Insight Report Server** service.
- Launch a command prompt as an "Administrator".
- Navigate to the Report Server `install` folder.
- Delete the Report Server service using the following command:

```
ReportServer.exe /unregserver
```

- Start the service based on language settings:

```
ReportServer.exe -RegServer -Locale -en-us (English)
ReportServer.exe -RegServer -Locale -zh-cn (Simplified Chinese)
```

- To verify that Report Server is running with the correct settings, open up **Windows Service Manager** and right-click **Adobe Insight Report Server - Properties**. The path to the executable will display the updated command-line settings.

The report server installation is now complete.

Client Upgrade

 **Important:** Before upgrading to **Client v6.1**, the administrator must first upgrade to **Insight Server v6.1**.

1. Launch `Insight.exe` but do not connect to any profiles.
2. Edit the `Insight.cfg` file.

```
Update Software = bool: true
```

3. Connect to your profile.

Allow the client to synchronize with the server and your client will be upgraded with the latest v6.1 client profiles, executables, and configuration files.



Note: The `Insight.zbin` file in the `install` folder is a backup file used for localization and must be present. This file or other `.zbin` files will be used depending on the command-line settings passed when starting up.

See [setting up localized languages](#) to add an `insight.zbin` file required for localized settings.

Additional Client Settings

Before configuring `Insight.exe` and supporting files, you must exit the client application.

To install Simplified Chinese:

1. Create a shortcut that passes in the command-line setting to the `Insight.exe` file.

```
Insight.exe -zh-cn
```

2. Configure `Insight.cfg` to support single and double-byte font characters.

Data workbench currently supports both English and Simplified Chinese. You can select fonts to support both of these languages:

```
Fonts = vector: 2 items
0 = string: SimSun
1 = string: Arial
```

The Windows operating system must also have the requested fonts installed.

3. Launch the shortcut that you created to synchronize profiles and the updated `.zbin` file.

To employ the Input Method Editor (IME):

IME allows you to input international characters.

1. Update the `Insight.cfg` file with these settings:

```
Localized IME = bool: true
```

2. Launch the shortcut that you created to synchronize profiles and the updated `.zbin` file.

The client installation is now complete.

Data Workbench 6.0 Release Notes

View the previous Data Workbench release notes.

See also the [previous Insight release notes](#).

Data Workbench 6.0 Release Notes

New features introduced in Data Workbench 6.0.4, including bug fixes and known issues.

New Features

Data workbench (Insight 6.0) includes these new features and visualizations for added reporting capabilities and predictive analysis tools.

To view previous features and fixes based for each past release, see the [release note archives](#).

Data Workbench Features	Description
Funnel Visualization	The Funnel visualization lets you define the sequential process flow of your customers and provides visibility into the fallout of visitors at each step in the process.
Visitor Clustering	Clustering lets you leverage customer characteristics to dynamically categorize visitors and generate cluster sets based on selected data inputs for customer analysis and targeting.
Correlation Analysis	Correlation Analysis lets you quickly identify relevant data relationships to extend and enhance your analysis.
Updated DeviceAtlas Distribution	The DeviceAtlas JSON file will now be distributed in a .bundle file (a renamed .tar.gz) along with DeviceAtlas.dll and DeviceAtlas64.dll.

Client Upgrade Requirements

Complete these upgrade tasks for data workbench (Insight 6.0) client features:

Updating the .zbin file for the client

Data workbench now supports an Input Method Editor (IME) as a secondary text entry process that allows you to enter international characters from your keyboard using a floating text box. Data workbench will support English by default but also allows you to load other files to support international languages, such as a virtual Chinese keyboard (Pinyin IME).

A new dictionary file (a .zbin file) is required by the client application before updating to version 6.0. You can obtain the needed .zbin file from the Software and Docs profile (Softdocs).

Prerequisites:

- Before upgrading to the Insight 6.0 client and Report Server 6.0, the Insight administrator must first upgrade to Insight Server 6.0.
- The Insight administrator will need to choose a zbin file based on language (en-us.zbin, zh-cn.zbin), copy the language file, then rename it to insight.zbin, and place the renamed file in the root directory of the Report Server where the executable is located. Then restart the Insight Report Server.

See the [Server Upgrade Requirements](#) for additional server-side upgrade information.

To upgrade the zbin file for the client (from version 5.x to 6.0):

1. To make sure the client does not get updated from the Insight Server during this upgrade, set your Insight.cfg argument to false.

```
Update Software = bool: false
```

2. Restart the Insight client.

3. Navigate to the Software and Docs profile (SoftDocs profile) and download the required **Insight.zbin** file:
Software\Insight Client\v6.00\Insight_6.00.zip
4. Copy the Insight.zbin file to the same folder as the Insight.exe file.
5. To make sure the Insight client now gets updated from the Insight Server, change the Insight.cfg file argument to true:
Update Software = bool: true

6. Restart the client.

Your client will synchronize with the server and you will see a message stating that your client is downloading. At the conclusion of the download, you will get a message asking if you want to restart your Insight client.

7. Click **OK** to restart the client.

The client will start and upgrade to version 6.0.

8. Restart the client again for the Insight.zbin client synchronization to take effect.

If you get the following message, then it means the zbin was not placed in the correct folder location alongside the Insight.exe file.

Insight Terminated: The backup dictionary file insight.zbin is missing.

To correct the issue, delete Insight.exe and rename the latest version of Insight.exe.old to Insight.exe, and then start again with Step 1 above.

Server Upgrade Requirements

Complete these upgrade tasks for Insight 6.0 server features:

Update all Insight Server 6.0 packages. Insight 6.0 includes server packages that need to be updated, including the new Predictive Analytics profile.

-  **Important:** *It is recommended that users upgrade their server clusters with fresh installations of Insight Server 6.0 when updating.*

It is also recommended that client upgrade their server clusters with fresh installation of Insight Server 6.0.

Upgrade Server cluster

Prepare the language file (.zbin file). The Insight administrator selects the <language>.zbin file for the required language (for example: en-us.zbin , zh-cn.zbin) located in the base/localization/<language>.zbin folder. The administrator then copies the language file and renames it to "insight.zbin".

After preparing the language file (.zbin), both the Insight Client and Report Server need to be updated. The Insight Client is updated during the [client upgrade process](#), but in most cases the Insight administrator will update the Report Server.

Update Report Server with a language file (.zbin file).

For all languages, Report Server 6.0 requires the "insight.zbin" file copied to the Report Server root folder.

Update the Report Server language files:

1. Add the renamed "insight.zbin" file to the root ReportServer directory.
2. The Report Server configuration file (reportserver.cfg) requires font settings for double-byte languages. For example, Chinese requires the addition of fonts using SimSun:

Report Server.cfg - Add Fonts

Fonts = vector: 2 items

```

0 = string: SimSun
1 = string: Arial

```

3. A parameter for Report Server 6.0 needs to be passed in the command line for localization, for example:

```

ReportServer.exe -Locale -zh-cn
ReportServer.exe -Locale -en-us

```



Note: If a locale is not specified, then the Report Server defaults to the language selected in the insight.zbin file.

Follow the steps to launch the ReportServer as a service with the Locale parameters:

- Launch a Command Prompt as an Administrator.
- Navigate to the ReportServer install folder.
- Type the following command to start the service:
 - For English: ReportServer.exe -RegServer -Locale -en-us
 - For Chinese: ReportServer.exe -RegServer -Locale -zh-cn

4. To verify if the ReportServer is running with the correct parameters:

- Open up Windows Service Manager.
- Right-click Adobe Insight Report Server - Properties.

The path to executable will contain the parameters:

```
ReportServer.exe -Service ReportServer -Locale -en-us
```

Modify Profile Configuration file for Predictive Analytics. Insight administrator will need to modify the custom profile.cfg file to include the Predictive Analytics profile to be available in Insight.

Example of the profile.cfg entry:

```

Example ("profile.cfg"):
Profile = profileInfo:
  Active = bool: true
  Directories = vector: 5 items
  0 = string: Base\\
  1 = string: Predictive Analytics\\
  2 = string: Geography\\
  3 = string: Adobe SC\\
  4 = string: Custom Profile\\

```

Update the PAServer.cfg file. If you want to submit Predictive Analytics clustering jobs to Insight Servers, then you will need to configure the PAServer.cfg file for handling server-side clustering submissions.

The custom profile should inherit the PAServer.cfg from the Predictive Analytics profile (Server\Profiles\Predictive Analytics\Dataset). Configure and save the PAServer.cfg per your implementation site.



Note: Once PAServer.cfg is configured and saved to custom profile, an Insight Server restart is required across the site.

Upgrade Report Server. You will need to update the fonts and the start-up parameters for Report Server.

Prerequisites:

- Before upgrading Report Server 6.0, the Insight administrator must first upgrade to Insight Server 6.0.
- For all languages, Report Server 6.0 requires the addition of Insight.zbin to the Report Server root folder. Make sure the base/localization/<language>.zbin is copied and renamed to "insight.zbin". Copy it to the root of the Report Server directory.

Update the Fonts and Start-up parameters:

1. Report Server requires font setting for double byte in order to output to different languages, for example:

Report Server.cfg - Add Fonts

```
Fonts = vector: 2 items
0 = string: SimSun
1 = string: Arial
```

2. Parameter for Report Server 6.0 needs to be passed in the command-line for localization purposes.

To launch the Report Server as a service with the Locale parameters:

1. Stop the Report Server Service.
2. Launch a Command Prompt as an Administrator.
3. Navigate to the Report Server install folder.
4. Type the following command to start the service:

```
ReportServer.exe -RegServer -Locale -en-us
```

To verify if the Report Server is running with the correct parameters:

1. Open up Windows Service Manager
2. Right-click **Adobe Insight Report Server - Properties**.
3. The path to executable will contain the parameters:

```
ReportServer.exe -Service ReportServer -Locale -en-us
```

Upgrade the SiteCatalyst data feed for Insight 6.0. The filename format of the SiteCatalyst data feed for Insight 6.0 has changed.

Current filename format:

```
RSID_YYYYMMDD_HH0000.tsv.gz
```

New filename format:

```
YYYYMMDD-RSID_HH0000.tsv.gz
```



Note: This change does not affect users currently deployed with the wbench/ecom version of the SiteCatalyst data feed.

The filename format change will allow for the full use of the Insight Start and End time declarations during log processing. This enables the process to evaluate if the contents of the file should be read, rather than filter all source files using a row by row search.

In most cases, a rename process was implemented upon receipt of the file to provide the full use of this capability. This modification provides the required naming convention by default without the need and overhead of a secondary process.

To use the new SiteCatalyst data feed:

1. Determine how the receiving process will handle the new filename format.

The standard rename/move scripts deployed during implementation moves the files with a ".gz" extension, and only performs a rename if the filename matched the filename format with the preceding RSID.

The new filename format:

```
YYYYMMDD-RSID_HH0000.tsv.gz
```

2. Evaluate the defined log source paths to confirm that all files will be read.

If you already have a rename script implemented, then you are already defining your log sources to read this new filename format.

Fixes

- Now, the key combination to leave a workspace without saving changes has been updated to **<Ctrl> + <Backspace>**. Previously, you voided changes and closed a workspace by pressing **<Ctrl> + <Delete>**.

Data Workbench 6.0 features

Data Workbench 6.0 included the following features.

Funnel Visualization

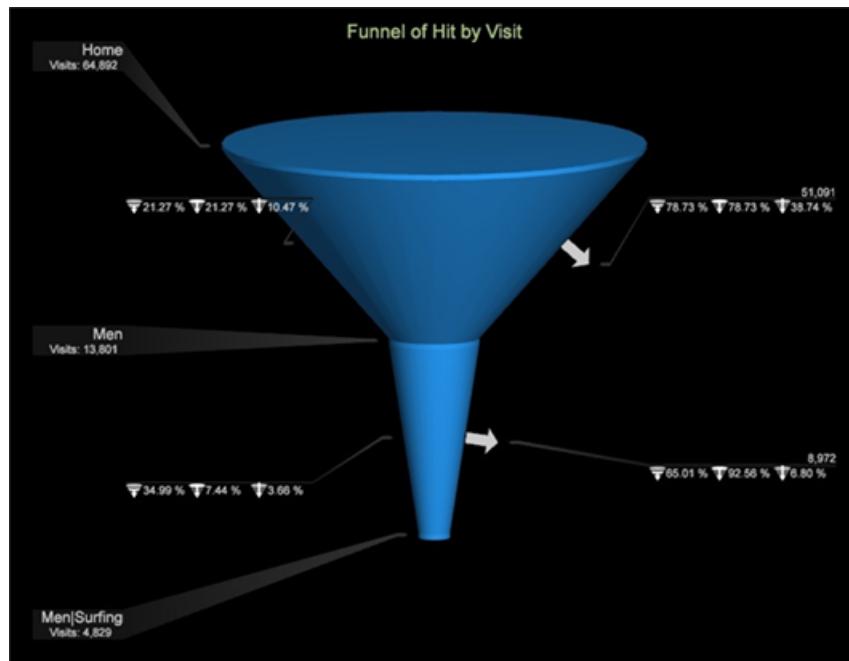
The Funnel visualization lets you identify where customers abandon a marketing campaign or divert from a defined conversion path while interacting with your website or cross-channel campaign.

The funnel visualization identifies converting page views to purchases, and lets you see where customers fall out of the process. Gaining visibility into customer decisions at each step lets you understand where they are being deterred, what path they tend to follow, and when customers leave your site and where they go.

Proper understanding of customer navigation allows architects to design and target web pages based on trended interest, and lets marketers better interpret customer actions and interactions against specific campaigns.

About the Funnel

The Funnel visualization is much like the Path Browser in building a path to analyze your visitor's sequence of hits, to identify who is falling out (who left the path) or falling through (who followed the path). It also identifies where visitors went after each step along the campaign path, and where they navigated to after falling out or falling through the defined steps.



In addition to web data, you can perform funnel analysis across all types of cross-channel data supported by the platform. Any data element from any source can be represented in the Funnel visualization.

The Funnel visualization provides various levels of data:

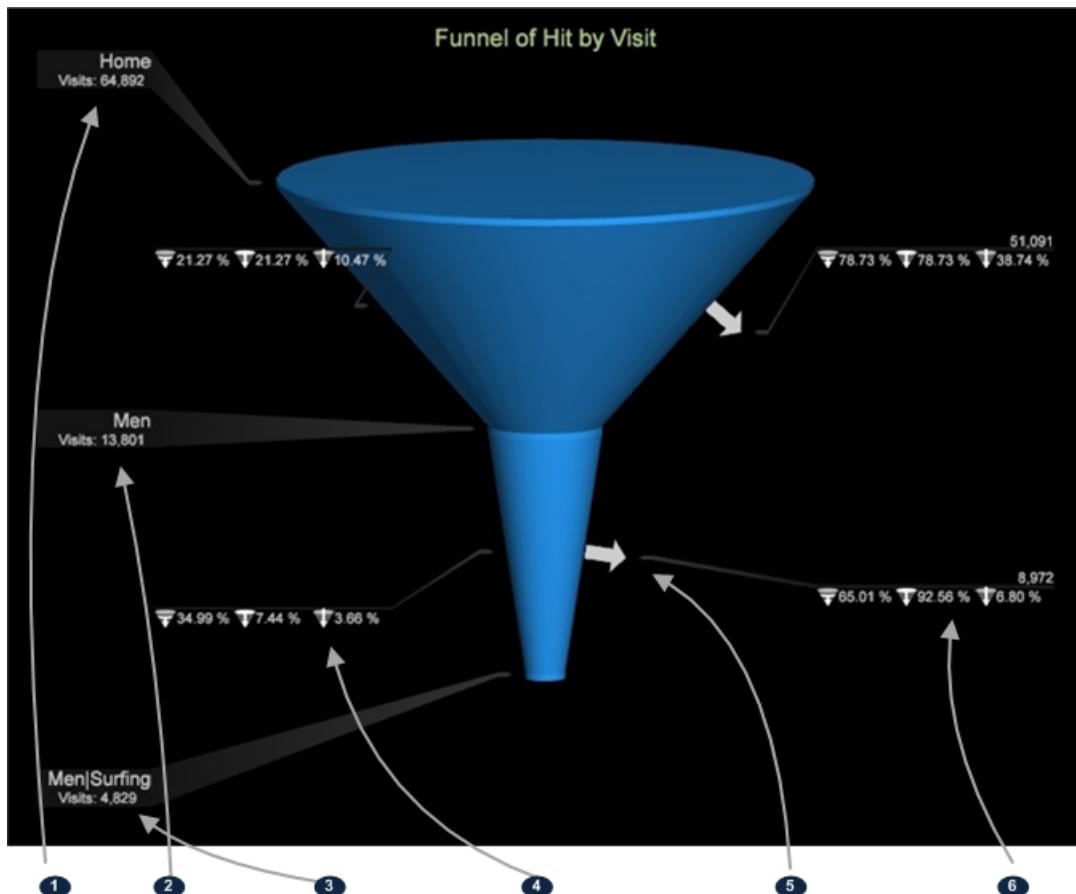
- **Funnel by Visit.** This funnel is based on a "per visit" interaction.
- **Funnel by Visitor.** This funnel is based on a "per visitor" interaction. This view shows the data based on the visit organized by visitor.
- The **Clip** dimension and **Level** dimension. Funnel dimensions can be modified by choosing Clickthrough, Hit, Product, Visit or Visitor Level dimensions.
- **Metrics.** You can change the underlying Funnel metrics from Visits used to build the funnel to any metric in your profile. The Funnel visualization allows you to drill into your data and analyze the patterns of visitors with multiple baseline metrics.

 **Note:** In the Funnel visualization, you can apply any dimension at the countable level. This is in contrast to the Path Browser and Process Maps that restrict your choice of metrics. Analysts have multiple choices when applying a metric in the Funnel visualization.

Funnel Features

The Funnel visualization includes features to build a funnel with multiple dimensions, raw visitor numbers, percentage of visitors at each step, and separate scopes.

Here are the basic features of the funnel visualization.



1	First Element	First funnel step in the process.
2	Third Element	Third funnel step in the process.  Note: The selected elements do not have to be from the same dimension.
3	Fall-through Percentage	Percentage who completed the defined path displayed in three scopes.
4	Fallout Browser	Fallout arrow. Right-click and select Add Path Browser to see what other path visitors took.
5	Percent Fallout	Percentages that describe three scopes of fallout for users that did not complete the path. Percentages are presented in three scopes:   The percentage of fallout from the step previous to this step.  The percentage of fallout from the first step in the funnel.  The percentage of fallout based on the total number of visitors.

Funnel Steps

The disks in a funnel represent the steps in the navigation, the cones represent the fall-through from one step to the next, and the arrows represent the fallout. Clicking a cone will select the users who fell through at that point and include them in the current workspace filter. Clicking an arrow will select the visitors who fell out.

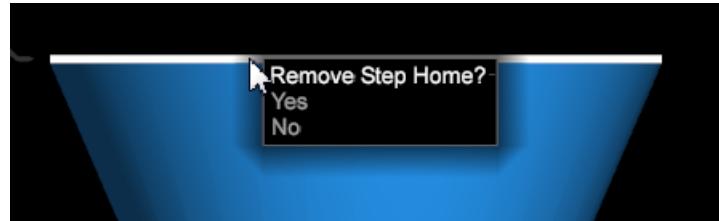
 **Note:** The Funnel visualization has a limit of eight steps that can be applied.

Additional Funnel Features and Functionality

- **Adjust the clip and level of the funnel.** Select the Funnel option from the Visualization menu. After the funnel is created, you can right-click on the title to adjust the clip and level to any countable metric in your system.



- **Drag more elements.** Add more elements to your funnel by dragging and dropping them from the Dimension table to the funnel using the **<Ctrl> + <Alt>** keys. You can drag multiple steps at the same time from the Dimension table by selecting multiple items (using **<Ctrl> + click**) and then dragging them to the Funnel visualization using the **<Ctrl> + <Alt>** keys..
- **Delete a step:** Delete elements by right-clicking on the step in the visualization and clicking **Yes**.

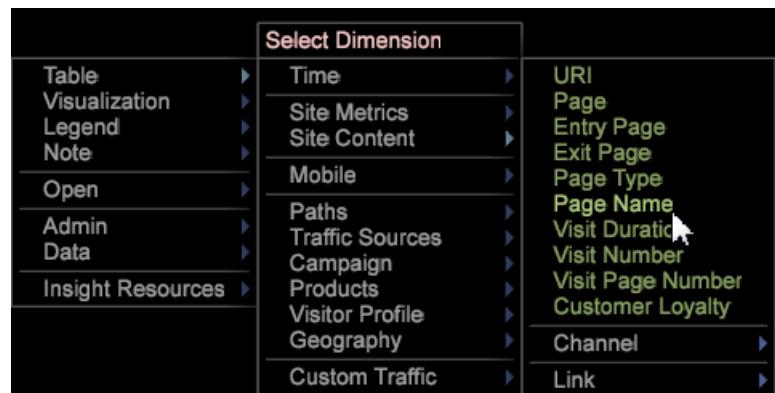


- **Rearrange the steps you have dragged to the funnel.** Simply click the step to select it and drag it to another position to rearrange the steps.
- **Open a Path Browser.** You can see more detail about where customers fall through or fall out of the process through the [Add a Path Browser](#) feature.
- **Add more steps.** You can add a maximum of eight steps to each funnel visualization.
- **Change the metric.** The metric can be changed so the steps are counting visits or some other metric at each step. Available options vary by dataset.
- **Display in a tabular view.** Right-click the title to display the Funnel Visualization menu and click **Show Tabular View**. Once in tabular view, you can select **Show Graph View** to return to graphic representation of the funnel. To open the Tabular View, right-click on the title and select Show Tabular View from the menu.
- **Compare sequences.** An efficient way to compare two similar sequences is to display their two visualizations side-by-side. You can also display both the tabular view and the graph view side-by-side using the Duplicate feature. To open, right-click on the title and select Duplicate from the menu.

Building a Funnel

Follow these steps to build a new funnel visualization

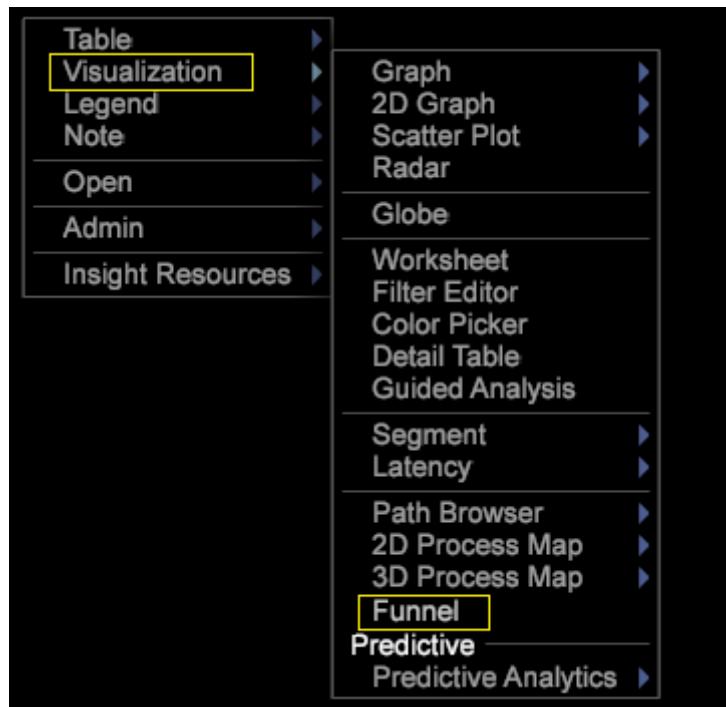
1. From a new workspace, open a dimension table.



For example, right-click on the workspace and select **Table > Site Content > Page Name**

2. Open a funnel visualization.

For example, right-click on the workspace and select **Visualization > Funnel**.



3. Add a dimension by selecting the element, then drag while then holding <Ctrl> + <Alt>.
4. Drag the element into position over the target zone, **Drag Dimension Element Here**.



5. Add additional dimensions.

You can add up to a total of eight steps to your funnel.

6. Release the table selection you made to view your funnel based on a total audience.

Funnel visualizations follow the pattern of all other visualizations, allowing the selected element to control the segment of data that you are visualizing.

7. Modify the Funnel clip dimension, level dimension, and metric.

Right-click on the title to adjust these options based on the metrics and dimensions defined in your custom profile.



From the Funnel, you can identify your fall out and fall through rates and the percentage of customers converting sales and following campaigns or content paths. For additional information, you can open a *Path Browser* to see a detailed list of the pages taken before arriving at the selected page, and the paths taken after they left.

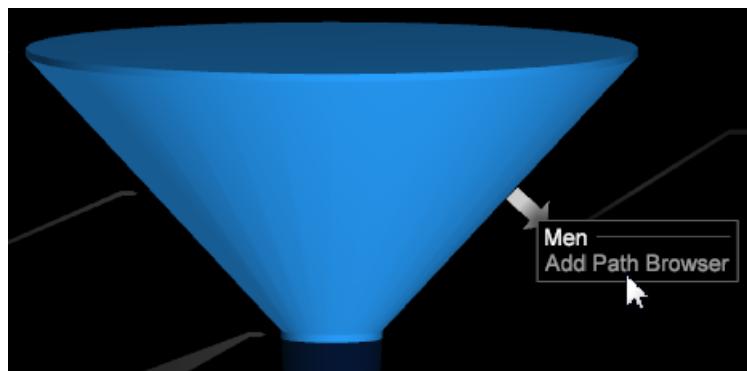
See additional [Funnel features](#).

Adding a Path Browser

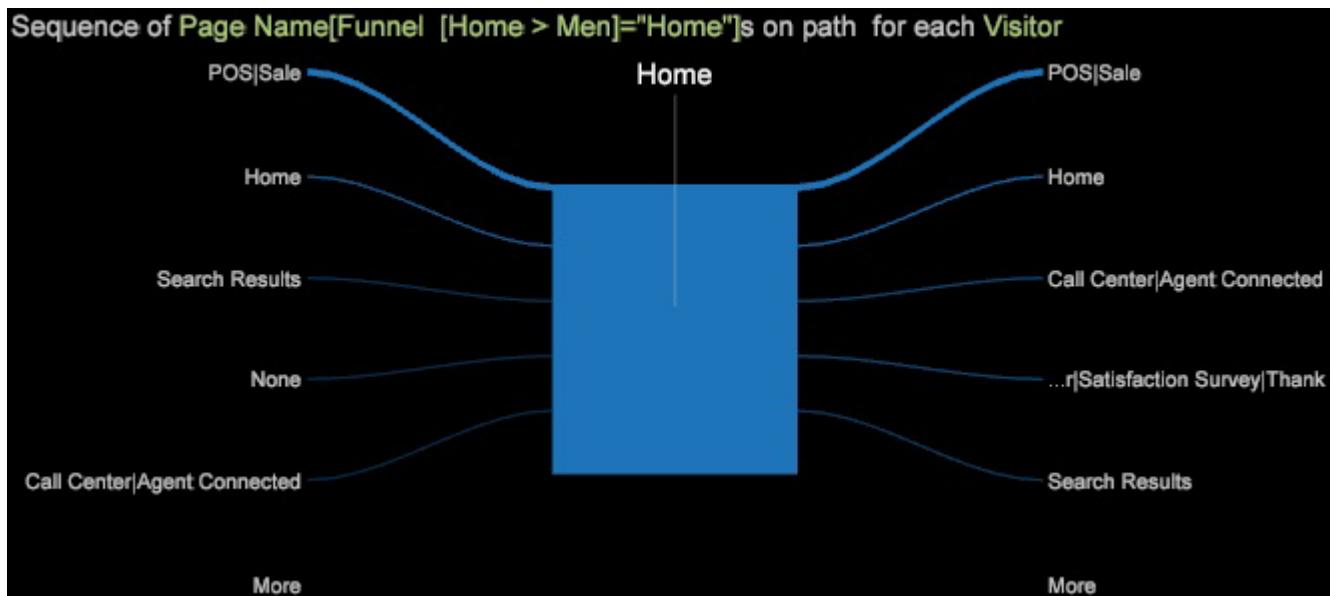
From the Funnel visualization, you can open a Path Browser to identify additional detailed visitor fallout and fall through paths.

You can identify where visitors "fallout" (who left the path) or where visitors are "falling-through" (who followed the path). You can open multiple Path Browsers from the same Funnel visualization by selecting fallout arrows or fall through cones.

1. Open the Path Browser for the fall out visitor, the visitors who left the site during a specific step. Right-click the fallout arrow and select the Add Path Browser option.



From the Path Browser, you can see where visitors went before hitting a selected element in the Funnel (on the left), and where they navigated to after leaving the page (on the right).



In the Path Browser visualization, the width of the lines going in and out of the selected dimension identifies the volume of traffic. For example, before hitting the Men's page, a few visitors came in through other routes, but most came in through the Home page. When leaving, most went to the Men Surfing page.

2. Open the Path Browser for the "fall-through" visitors. Right-click the cone in the funnel to identify the path for visitors who fell through, or moved to the next step, of the funnel.
3. Click the **More** button at the bottom of the Path Browser visualization to open a table with all visits listed in a tabular view for the previous and current visits.

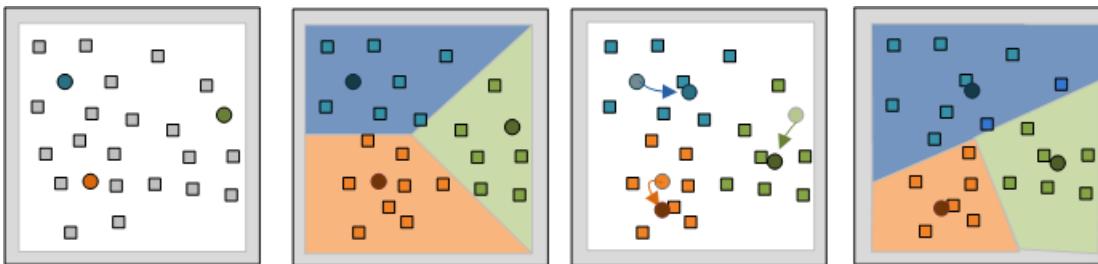
More Page Name[Funnel [Home > Men]="Home"]s on path	Visits
POS Sale	1,132
Home	253
IVR Product Questions	30
IVR Product Questions General Questions	41
None	73
IVR Product Questions Specific Product Error: Product Not Fo	4
Search Results	74
Product Details Bear	34
Equipment Surfing	30
Product Details Lagos Mini Longboard	20
IVR Welcome	28
Call Center Agent Connected	107
Call Center Satisfaction Survey	31
Men	0
Men Winter	0
Men Winter Skiing	0
Product Details Midweight	0
Men Surfing	5

Visitor Clustering

Visitor clustering lets you leverage customer characteristics to dynamically categorize visitors and generate cluster sets based on selected data inputs, thus identifying groups that have similar interests and behaviors for customer analysis and targeting.

Clustering process

The clustering process requires you to identify metrics and dimension elements to use as inputs, and allows you to choose a specific target population to apply these elements to create specified clusters. When you run the clustering process, the system uses the metric and dimension inputs to determine appropriate initial centers for the specified number of clusters. These centers are then used as a starting point to apply the K-Means algorithm.



The initial centers are intelligently chosen via a Canopy Clustering pass.	Data clusters are created by associating every data point to the nearest center.	The mean of each of the K clusters becomes the new center.	The algorithm is repeated in steps 2 and 3 until convergence is reached. This can take multiples passes.
--	--	--	--

The **Maximum Iterations** in the **Options** menu allows the analyst to specify the maximum number of iterations to be performed by the clustering algorithm. Setting this option may result in faster completion of the clustering process based on the maximum iterations cap at the expense of exact convergence of the cluster centers.



Note: Once the clusters have been defined, the Cluster Dimension can be saved for use just like any other dimension. It can also be loaded into the Cluster Explorer to examine the separation of cluster centers.

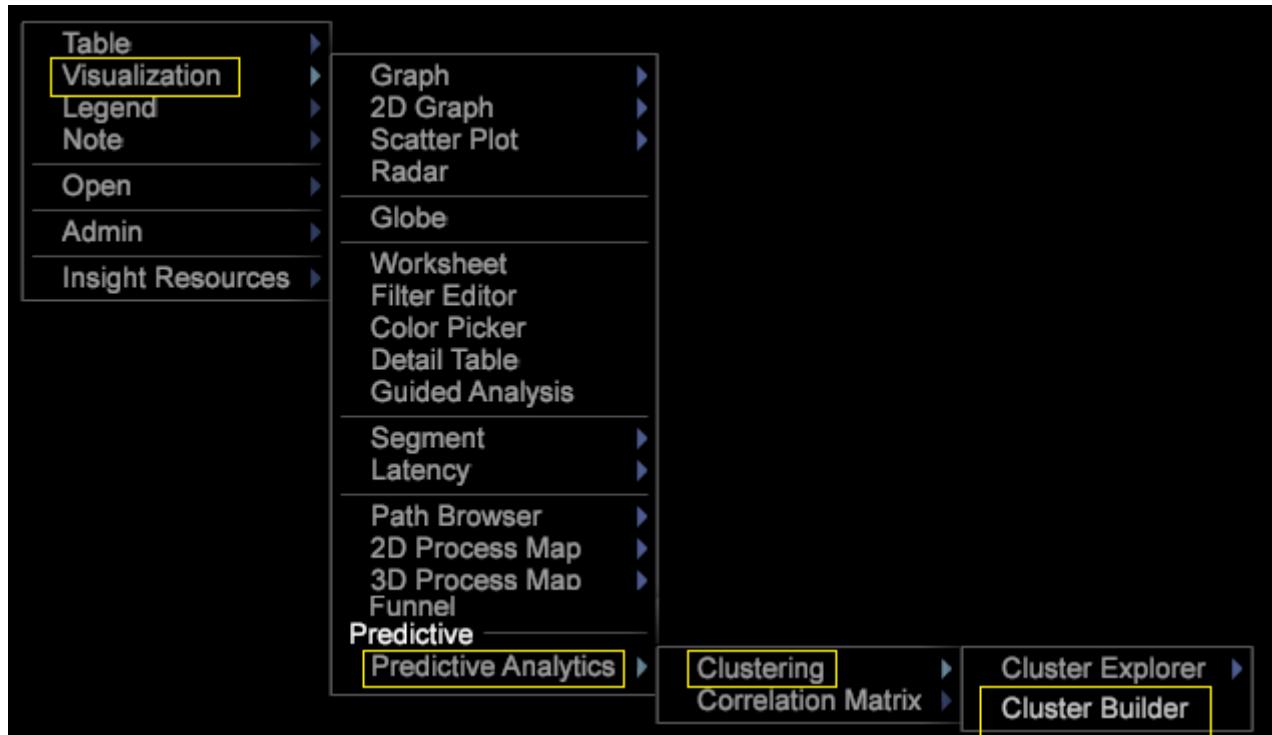
Building Clusters

Select input variables, the number of clusters, and a target population (if desired) to define clusters in your dataset.

Building Clusters

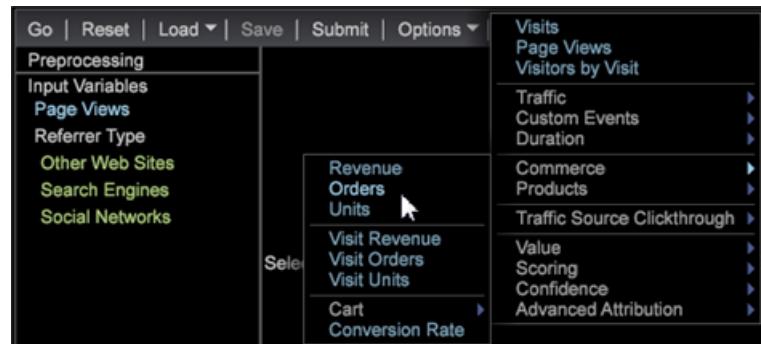
1. Open the **Cluster Builder**.

Click **Visualization > Predictive Analytics > Clustering > Cluster Builder**.



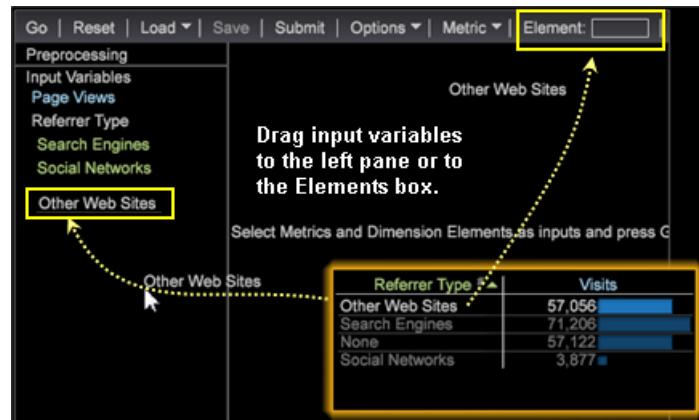
2. Select input variables.

- Add metrics to the **Input Variables** list by selecting from the **Metric** menu in the toolbar.



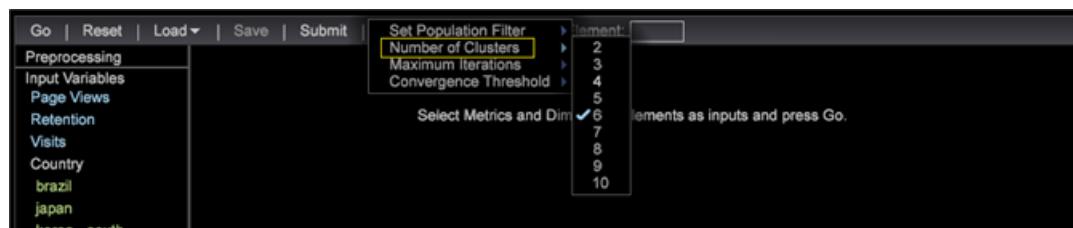
- Add dimension elements to the **Input Variables** list by dragging them from a Dimension's table.

Press **Ctrl + Alt** and drag selected dimension elements to the **Input Variables** list or to the **Element** box in the toolbar.

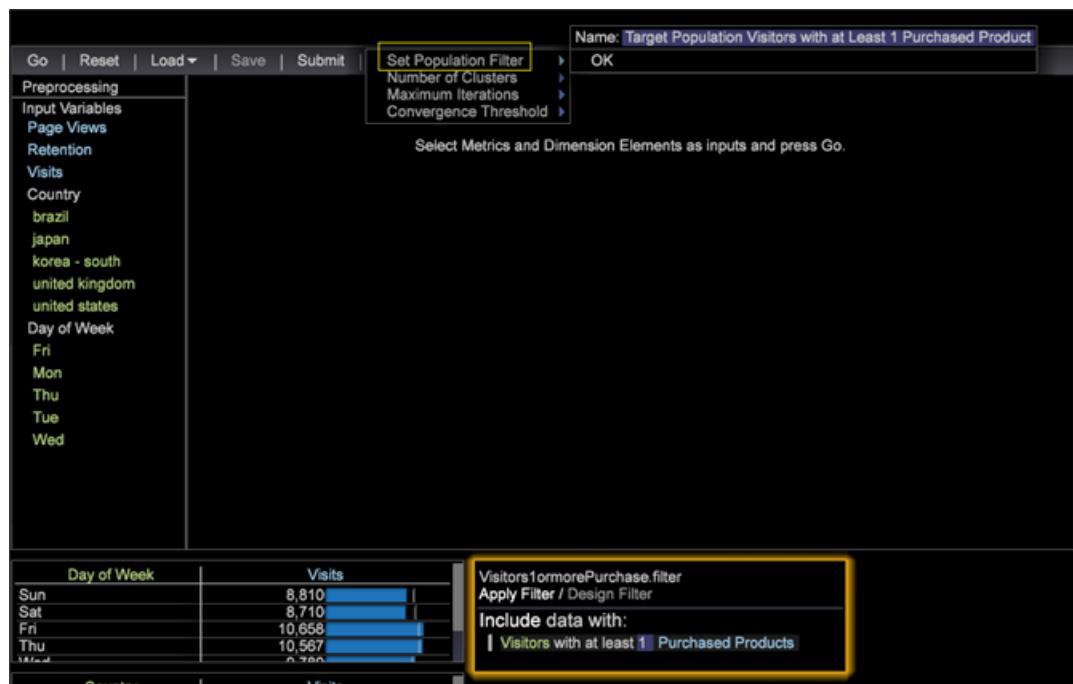


By default, clustering is performed on the entire dataset. You can see all input variables in the left **Preprocessing** pane.

3. Use the **Options** menu to select the desired number of clusters.



4. If you want to cluster a subset of the Visitors in your dataset, you can define a Population Filter.



Start by defining the desired subset using selections in your Workspace or by using the **Filter Editor**. Once you have the desired subset selected, set the Target Population in the **Options** menu. It is recommended that you give the targeted group an identifying name.

The **Options** menu also has settings to control the maximum number of passes and the acceptable threshold for center convergence.

5. After inputs and options have been configured, click the **Go** button to run the clustering locally or press **Submit** to send the task to the Predictive Analytics Server. Submissions to the server will save the resulting dimension to the dataset when convergence is complete.

When running locally, you will see the Cluster Builder move through four canopy clustering stages as it defines intelligent centers based on the inputs.

Once the centers of the clusters stop changing more than the specified convergence threshold, the Cluster Dimension is converged and the Cluster Builder displays additional information about how relevant an input was to each cluster.

6. Customize the clusters.

Right-clicking on the statistics' color bar opens a context menu allowing you to customize the relevance thresholds, and in the case of the dimension element distributions, to choose which test is displayed.

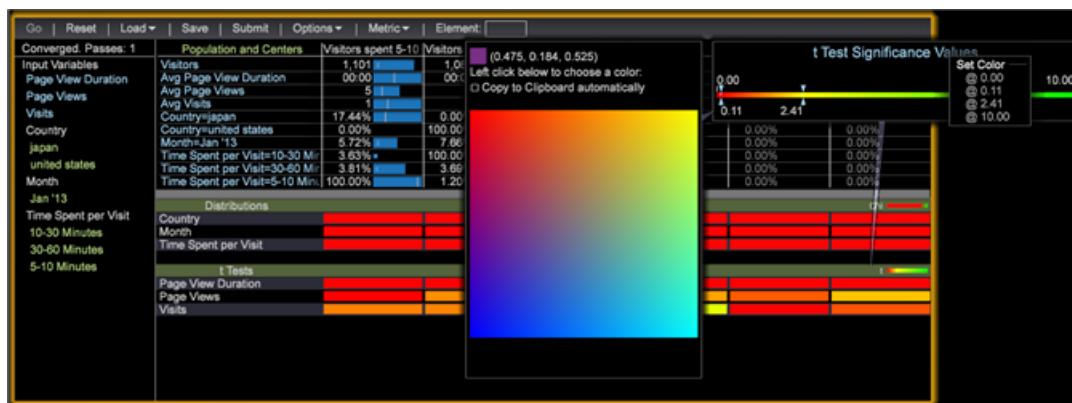


Metric inputs provide a t-test for each cluster, while dimension element inputs provide three distribution tests (Chi squared, an entropy U statistic, and Cramer's V statistic) for each cluster.



*Note: If you add or remove inputs during convergence, the process will pause until you press **Go** again.*

After building clusters, you can open the color picker to assign colors for different distribution results.



7. With the Cluster Dimension converged, you can add metrics to the table and make selections as normal. You can also right click on the element names (Cluster 1, Cluster 2, etc) to open the context menu to rename them to something more meaningful.



8. If you wish to use this cluster dimension in other visualizations, you can **Save** it locally or **Submit** it to the server.

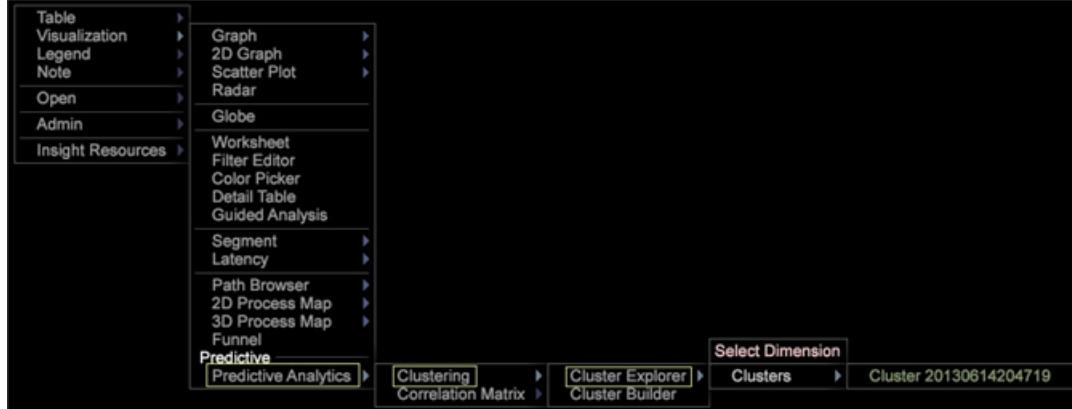
If you wish to run convergence again or see the relevance of inputs, Cluster Builder can also load existing cluster dimensions.

 **Tip:** When selected, **Reset** will completely release all the input variables and give you a blank cluster builder visualization to define new clusters.

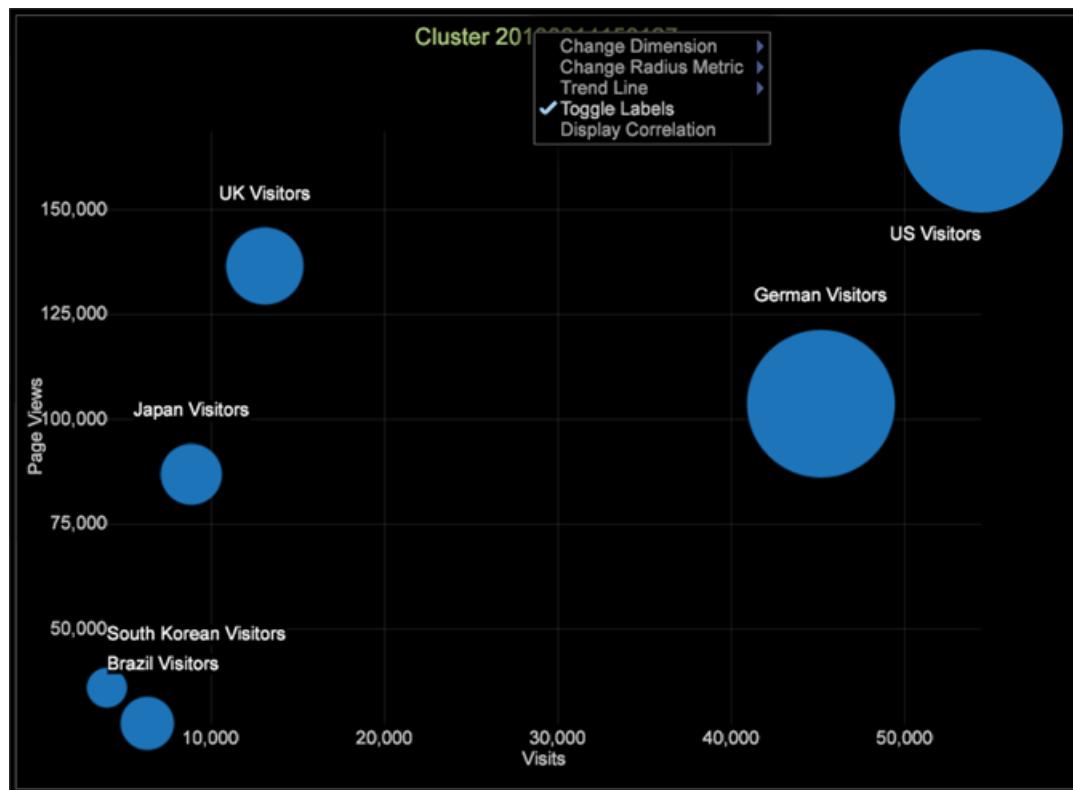
Exploring Clusters

After a Cluster Dimension is built, you can save it and examine it using the Cluster Explorer.

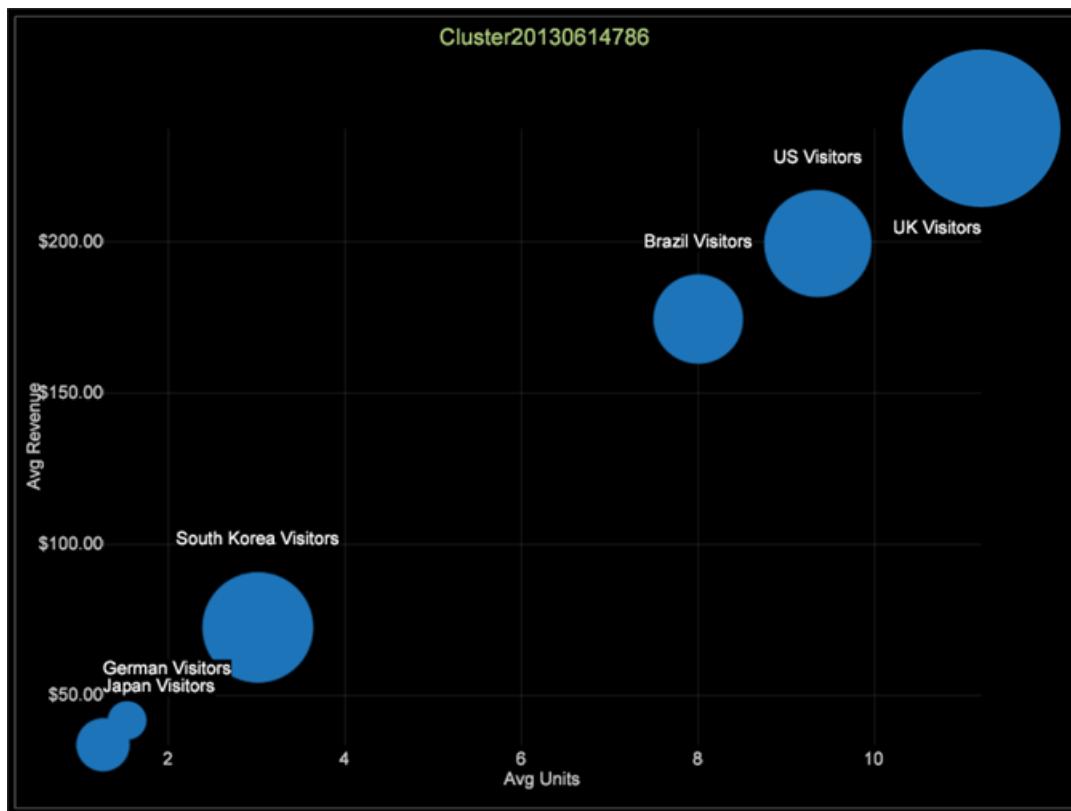
1. Select **Visualization > Predictive Analytics > Clustering > Cluster Explorer > Clusters**. Choose the saved cluster dimension that you want to explore.



2. Right-click the visualization title and click **Toggle Labels** to turn them on. You can use this menu to change the cluster dimension you are exploring, change the radius metric, add trend lines, and display correlation.

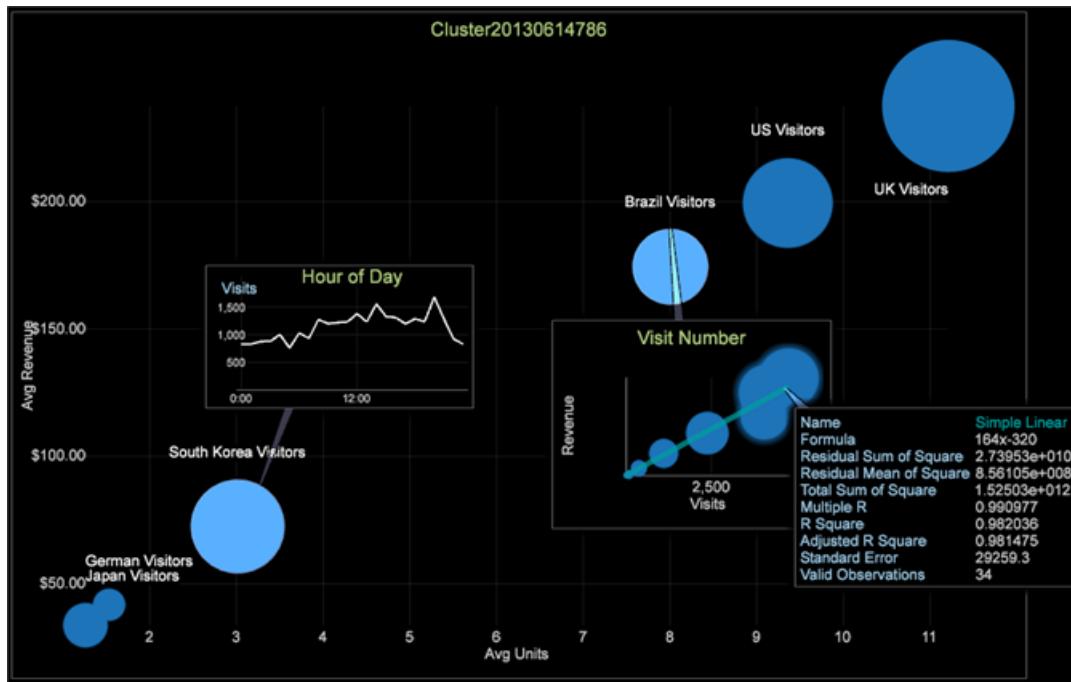


3. To modify the Cluster Dimension you are exploring, change the radius metric, add trend lines, and display the correlation using this menu.



The Cluster Explorer displays the centers of the clusters along any two input axes at a time. This allows you to examine their separation in multidimensional space.

4. Right click the cluster to display the menu and choose from callout types: Image or Text Annotation, Metric Legend, Table, Line Graph or Scatter Plot.



Correlation Matrix

Statistical correlations measure meaningful relationships to identify opportunities through advanced data mining.

Employing the [Pearson's correlation coefficient](#), the Correlation Matrix furnishes you with relevant information to better identify the next steps in a marketing campaign, to improve site design, or to continue in-depth customer analysis for additional correlation dependencies.

Building a Correlation Matrix

The Correlation Matrix compares metrics over a countable or non-countable dimension. The matrix can then be modified to highlight correlations within the visualization through color picking or to render it as a text map, heat map, or both.

1. Open a Correlation Matrix.

Right-click **Visualization** > **Predictive Analytics** > **Correlation Matrix**. The dimension table will open.



Select a dimension, such as Time > Day of the Week from this menu. The correlation table will open with the dimension identified in the corner of the matrix and its associated metric placed in the row and column. For the Day of the Week dimension, **Visits** is the associated metric.

Correlation Matrix	
Day of Week	Visits
Visits	1.000

The correlation is 1.000 because you are comparing a metric against itself (which reflects a perfect, but unusable, correlation.)

2. Change one of the metrics.

Right-click and select **Change Metric** to change a metric in either the row or column. This sets up a correlation between two metrics of value.

For this example, change the **Visits** metric in the column to **Internal Searches**. Right-click and select **Metric > Custom Events > Custom Event 1-10 > Internal Searches**.

Correlation Matrix	
Day of Week	Internal Searches
Visits	0.828

3. Add more metrics to the Correlation Matrix.

Right-click in a metric column or row. For example, from the Metric menu, add

Metric > Custom Events > Custom Event 1-10 > Sign in Error.

Correlation Matrix		
Day of Week	Internal Search	SignIn Errors
Visits	0.828	0.856

The new metric will appear in a column with a correlation number. You can add other metrics, such as **Email Signups**, to build out the table.

Correlation Matrix			
Day of Week	Internal Searches	SignIn Errors	Email Signups
Visits	0.828	0.856	0.835

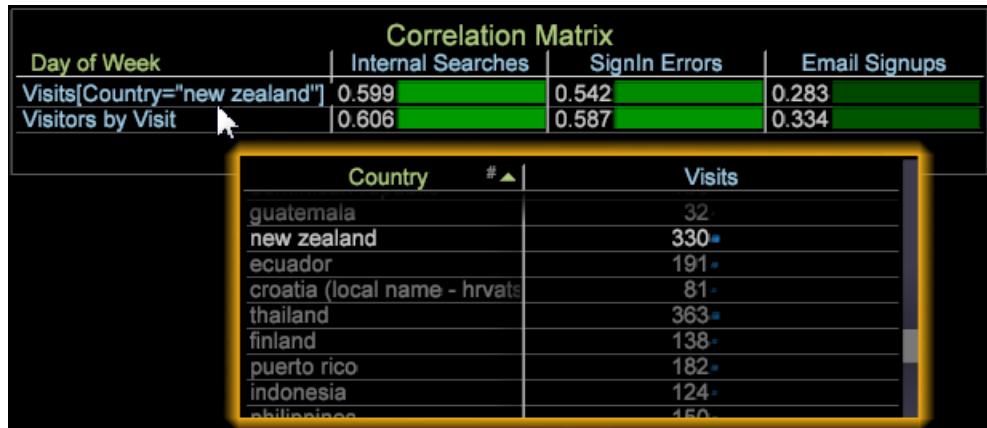
Or add metrics to rows to compare against metrics in columns.

Correlation Matrix			
Day of Week	Internal Searches	SignIn Errors	Email Signups
Visits	0.795	0.815	0.769
Visitors by Visit	0.865	0.889	0.869
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Visitors by Visit Metric Editor Metric Legend Edit Metric Details Metrics Add Metric ▾ Change Metric ▾ Label ▾ Remove Metric ▾ Mirror to Columns ▾ Recalculate Edit Colors </div>			

4. (optional) Constrain a metric by adding a dimension element.

Right-click in the workspace and select **Table**. From the open dimension table, press Ctrl + Alt and drag the element over a metric in a column or row. The element will appear next to the metric in brackets.

For example, for the **Visits** metric, you can constrain it by selecting the **Country** as **New Zealand**.



The screenshot shows a 'Correlation Matrix' table and a 'Dimension' window. The matrix table has columns for 'Day of Week' and metrics: 'Internal Searches', 'SignIn Errors', and 'Email Signups'. The 'Day of Week' row contains values: 'Visits[Country="new zealand"]' (0.599), 'Internal Searches' (0.542), and 'Email Signups' (0.283). The 'Visitors by Visit' row contains values: 'Visits[Country="new zealand"]' (0.606), 'Internal Searches' (0.587), and 'Email Signups' (0.334). A cursor is hovering over the 'Visits[Country="new zealand"]' cell in the 'Visitors by Visit' row. Below the matrix is a 'Dimension' window titled 'Country' with a list of countries and their visit counts: guatemala (32), new zealand (330), ecuador (191), croatia (local name - hrvats) (81), thailand (363), finland (138), puerto rico (182), indonesia (124), and philippines (150).

Notice that when you select a dimension element, the correlation changes in all metrics based on the selected dimension element. Only the Visit metric will be constrained for "New Zealand" once the dimension window is closed.



*Note: If changing a metric with a dimension constraint (by right-clicking and selecting **Change Metric**), the dimension element constraining the metric will be lost. You will need to add the dimension element again.*

5. Create a **Binary Filter** to further constrain the metric. Right-click the metric in the table and select **Binary Filter** from the menu.

Correlation Planning and Analysis Goals

The following are general goals for building a Correlation Matrix.

Identify the relationship between two metrics against a specified dimension. In the example, the matrix was built around the core dimension, Day of the Week, with the metrics Visit, Email Signups, and SignIn Errors compared against Internal Searches, Login, and Survey Displayed metric events.

Develop hypotheses to focus analysis. After running a correlation analysis, your next step is to look for dependencies and correlation of the metrics. For example, understanding that internal searches has an effect on email sign-ups provides a path to predict that relationship and to modify marketing campaigns or web site navigation design.

Identify metrics to include more advanced data mining algorithms. In most cases, the key metrics will be identified because they will be seen affecting multiple correlations. You can now take those key metrics and apply them to additional data mining analysis for deeper insight.

Correlation Matrix Feature Notes

Filtering and selecting on dimension elements within a table compares like values. For example, using Day of the Week dimension and then clicking into an element of that core dimension, such as clicking on a specific day within the Day of Week dimension table, renders a one to one match at 100% that provides no usable correlation. Because the root dimension was Day of the Week, any selection within the Day of the Week dimension table will alter the matrix to be a one-to-one correlation.



However, the 1 to 1 correlation (when a single selection is made of all elements) is only on that specific day. If you make multiple selections then it does not necessarily remain a 1 to 1 correlation, and will not always yield a 100 percent match regardless of selecting 1 or 1+ days of the week.

Statistical correlations are not equal to the Correlated Data Model, the historical reference of Adobe Analytics products. The statistical correlation in data workbench is based on the [Pearson Correlation model](#).

Display Correlation in a Scatter Plot. Right click the title on a Scatter Plot and choose **Display Correlation** from the **Visualization** menu. The Correlation value will display in the upper right section of the Scatter Plot.

 **Note:** *The Scatter Plot and Pearson's matrix will display "Calculation Error" if the application is unable to run the Pearson's correlation calculation. This is usually due to insufficient data, which can cause the equation to attempt to divide by 0.*

About the Pearson Correlation Coefficient

The Pearson Correlation Coefficient is used in the Correlation Matrix as the algorithm to display the strength of the linear dependence between two variables.

This linear correlation is a statistical measure of the linear dependence, or correlation, between two variables to render a value between +1 and -1 inclusive, representing either a positive or negative dependence.

Here is the Pearson Correlation Coefficient

$$r = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^n (X_i - \bar{X})^2} \sqrt{\sum_{i=1}^n (Y_i - \bar{Y})^2}}$$

The Pearson's value is visualized in the Correlation Matrix, which depicts the correlation between two defined metrics. These metrics can be compared to one another over any countable or non-countable dimension in the dataset.

You can highlight these comparisons through contrasting colors using the color picker, or by comparing values in a text map and heat map, or both.

Correlation Analysis Use Cases

Defining dependent correlation points that make sense in your market is the essence of correlation analysis.

These use cases highlight the art of identifying relationships as correlation points applied to the science of the [Pearson correlation coefficient](#).

Social Media and Website Correlation

Digital publishers want to maximize their understanding of the potential relationship between social media activity and visits to their website. For example, the digital publisher runs the correlation report between hourly Twitter mentions and visits for a two week period. The correlation is found to be $r = 0.28$, which indicates a medium, positive relationship between Twitter mentions and website visits.

Optimization for E-retailers

E-retailers are interested in driving increased revenue. For example, an e-retailer wants to compare a number of secondary success events (e.g., file downloads, product detail page views, internal search click-throughs, etc.) with weekly web revenue. They can quickly identify internal search click-throughs as having the highest correlation ($r = 0.46$), which may indicate an area for optimization.

Binary Filter in the Correlation Matrix

A **Binary Filter** in the Correlation Matrix lets you constrain values for one or both of the correlated metrics to better focus the comparison.

To set a binary filter on a Correlation Matrix:

1. From the Correlation Matrix, right-click a metric name.
2. Select **Edit Metric Details**.



The **Edit Correlation Metric Details** window will open.



3. Set up a Binary Filter.

First, click the **Inactive** setting. It will toggle to set the filter as **Active** and display the **Comparison** and **Value** fields.

Then, select a **Comparison** operator and set its **Value** to set up a filter for the selected metric.



Important: The Binary Filter for Data Workbench 6.2 has been updated with new features, requiring you to rebuild any correlation matrix with a binary filter built in previous versions.

Adding Dimension Elements

You can also add a dimension element to constrain a metric. A metric can have only one element associated with it.

The screenshot shows the Data Workbench interface with the Correlation Matrix and a detailed view of a specific metric.

Correlation Matrix:

Week	Visits	Orders
Page Views	1.000	1.000
Revenue[Week='01/21/13']	1.000	1.000

Edit Correlation Metric Details:

- Metric: Revenue[Week="01/21/13"]
- Label: (highlighted)
- Binary Filter: Inactive
- Comparison: >
- Value: 0.000
- Element: Week="01/21/13"

Table View:

Week	Visits
01/21/13	13,782
01/28/13	40,825
02/04/13	42,010
02/11/13	35,254

Right-click in the workspace and select **Table**. Open a dimension with its elements and drag to the **Element** setting in the Edit Correlation Metric Details window, or drop on a metric in the Correlation Matrix.

DeviceAtlas Transformation Distribution

The DeviceAtlas JSON file will now be distributed in a `.bundle` file (renamed `.tar.gz`) along with `DeviceAtlas.dll` and `DeviceAtlas64.dll` files.

When the administrator upgrades the server to version 6.0, the `DeviceAtlas.bundle` file is included with the upgrade package in the **Software and Docs** profile (softdocs profile) located at:

Server Packages > v6.00 > Server_6.00.zip

The `DeviceAtlas.bundle` file is extracted to `Server\Lookups\DeviceAtlas`.

The `DeviceAtlas.bundle` file should be placed in a directory that is synchronized to the DPUs, and the `DeviceAtlas.cfg` file corresponding to the new `DeviceAtlasComponent` should be placed in the "Components for Processing Servers" directory on the synchronization master. When the `DeviceAtlas.bundle` file is changed, the very next `DeviceAtlas` lookup call will get results based on the updated API and/or JSON file.

Modify the Transformation.cfg file

The `DeviceAtlas` Transformations will no longer need to specify the path to the JSON file. Any previous `DeviceAtlasTransformation` that is defined in the `transformation.cfg` file should no longer include the `File` parameter that points to the obfuscated JSON file.

This example `Transformation.cfg` file shows the `File` argument that should be deleted to avoid confusion. (Leaving it there will not cause harm, but only potential confusion because it will be ignored.)

```

6 = DeviceAtlasTransformation:
  Comments = Comment: 0 items
  Condition = AndCondition: 0 items

  File = string: Lookups\DeviceAtlas\20110106_private.json.obfuscated
  ^^ DELETE THE ABOVE LINE FROM ALL PREVIOUS TRANSFORMATIONS ^^

  Name = string: DeviceAtlas Lookup
  Outputs = vector: 4 items
  
```

```
0 = Column:
  Column Name = string: vendor
  Field Name = string: x-vendor
1 = Column:
  Column Name = string: model
  Field Name = string: x-model
2 = Column:
  Column Name = string: isBrowser
  Field Name = string: x-isbrowser
3 = Column:
  Column Name = string:usableDisplayHeight
  Field Name = string: x-usable-display-height
User Agent = string: x-ua
```

Modify the DeviceAtlas.cfg file

This is an example of the component argument required in the DeviceAtlas.cfg file.

```
component = DeviceAtlasComponent:
  DeviceAtlas Bundle File = string:Lookups\\DeviceAtlas\\DeviceAtlas.bundle
  Unsyncronized Bundle Extraction Path = string: Temp\\DeviceAtlas\\
```

This DeviceAtlas.bundle file will be treated just like a configuration file from the perspective of the Profile Synchronization feature. In addition, the JSON data and DLL will be used at the Component level rather than at the individual Transformation level.

A new DeviceAtlasComponent, upon startup, finds the .bundle conglomeration, de-obfuscates the JSON file into memory, extracts the files into a temporary directory, and loads the appropriate DLL for the running platform. This component also monitors changes to the bundle file, and reloads the DLL and .cfg file automatically if it changes.

Running DeviceAtlas

Proper configuration makes a big difference in the time required for transformation. The transformation can be configured to run only once per visitor per session to allow DeviceAtlas to speed up the process.

If deployed using Log Processing.cfg:

Run the transformations twice.

1. Look up only the mobile_id field, then
2. Create conditions to ignore the mobile_id and then look up the rest of the fields.

If deployed using Transformation.cfg:

Deploy as in Step 1 in Log Processing above, or use cross-rows to support a conditional setting.

- Cross-Rows—Grab the previous session key. Then identify if the current session key is different from the one found with cross-rows. If so, then the DeviceAtlas transformation will only run on one record per session.

Data Workbench 6.0.4 Release Notes

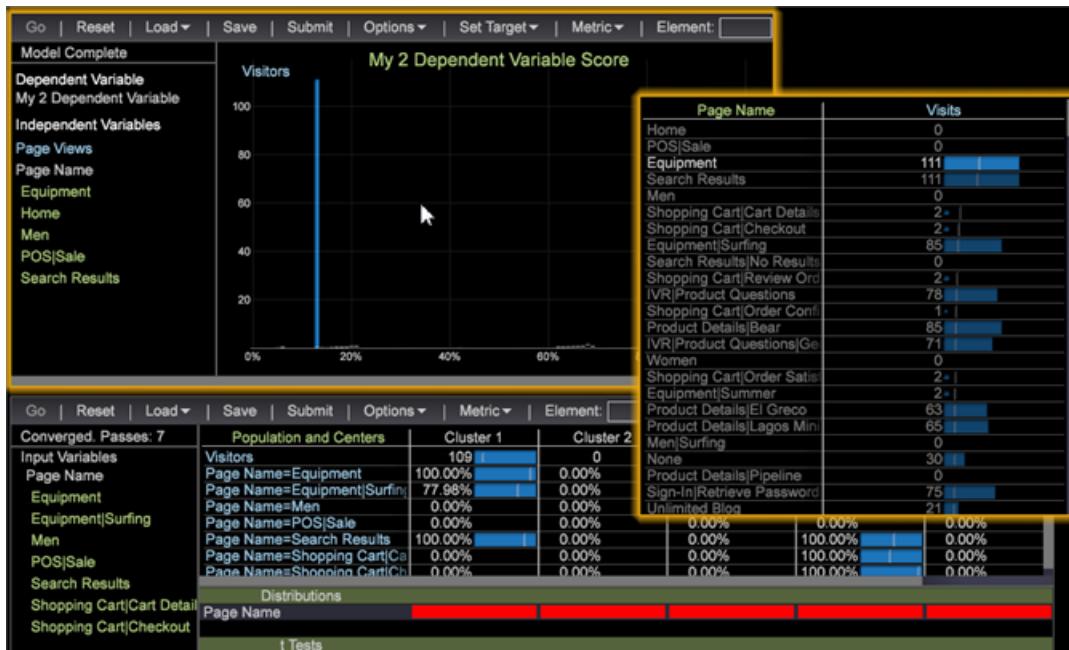
New features introduced in Data Workbench 6.0.4, including bug fixes and known issues.

To view previous features and fixes based for each past release, see the [release note archives](#).

New Features

Data Workbench 6.0.4 includes these new features and visualizations for added reporting capabilities and predictive analysis tools.

Propensity Scoring visualization. Data workbench calculates scores for each visitor as an estimated probability that a specified event may happen. The Visitor Scoring visualization allows you to create a score dimension that gives a probability of a specified event for every visitor of interest based on the input variables.



See [Propensity Scoring](#) for additional information about this feature.

Upgrade Requirements

Log Source ID must be defined. Starting in version 6.04, if the Log Source ID is not defined then you will get the following error:

Missing Log Souce ID in log processing.cfg. Log Source ID must be defined for all log sources.

The Recording of Rows per Log Source was added in Data Workbench 6.0 and can be defined in the custom profile Log Processing.cfg by adding a uniquely named Log Source ID. If you have a blank Log Source ID, then you could see Log Processing issues such as incomplete reading of the log source data and other discrepancies.

```
Log Processing.cfg
Log Sources = vector: 2 items
0 = VisualSensor:
  Compressed = bool: false
  Log Paths = vector: 1 items
    0 = Path: \some path\
  Log Server = serverInfo:
    Address = string:
    Name = string:
    Port = int: 80
    Proxy Address = string:
    Proxy Password = string:
    Proxy Port = int: 8080
    Proxy User Name = string:
    SSL Client Certificate = string: Certificates\\server_cert.pem
    SSL Server Common Name = string:
    Use SSL = bool: false
  Log Source ID = string: <Name your ID Here>
```

```
Name = string:  
Recursive = bool: false
```

Ability to Delegate FSU Resources

In `Profiles/<profilename>/dataset/Cluster.cfg`, you can now specify separate File Server Units (FSU) for the Normalize and Source List servers. These services are no longer tied to the Master FSU.



Note: If the List Server is not specified, then the List Server will inherit the Normalize Server's configuration settings.

Example in the `cluster.cfg` file.

```
Cluster = ClusterConfig:  
  Normalize Server = serverInfo:  
    Address = string: normalizeserver.domain.com  
    Port = int: 80  
    Use SSL = bool: false  
  List Server = serverInfo:  
    Address = string: sourcelistserver.domain.com  
    Port = int: 80  
    Use SSL = bool: false
```

Fixed Bugs

- In Data Workbench 6.0, the Correlation Matrix and Cluster Builder did not support Compute in Background. This is now fixed in version 6.0.4.
- Previously, if you had a selection on the Funnel and removed a step, an access violation could occur. This has been resolved.
- Fixed a potential locking condition in Segment Export that may cause problems under heavy load conditions.